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#### OUR SUMMER ISSUE.

INSETS will be quite in order for the issue of THE CHEMIST AND DRUGGIST to be published on July 25, 1903. It will be our annual Summer Issue, and we can stitch in with it circulars and price-lists, printed in colours or otherwise, to the special design of the advertisers. Their insertion in THE CHEMIST AND DRUGGIST insures effective distribution to good buyers, and the method saves advertisers money, time, and worry. The Publisher will give all particulars on application.

#### Summary.

AN IRISH PHARMACY BILL is rumoured (p. 676).  
 FOR further Irish examination-results see p. 647.  
 TR. GENTIAN. Co. is too bitter, Mr. Boa says (p. 651).  
 THE COUNCIL PRIZES QUESTIONS are given on p. 652.  
 FOR the London Minor examination results see p. 653.  
 SALICIN chiefly occurs in the inner willow-bark (p. 651).  
 NEW PETROLEUM REGULATIONS are announced (p. 646).  
 INCOME-TAX 11d., and no bread-tax are the chief Budget changes (p. 688).  
 MR. JOHN R. JACKSON tells, in a note on p. 669, how arrowroot is made.  
 THE HIMALAYAN CHEMIST is delightfully depicted by "F. R. G. S." on p. 660.  
 HAVE YOU A BOOK-PLATE? If so, we would like a copy of it. See p. 670.  
 THE RACE FOR THE COUNCIL-ROOM is the subject of this week's cartoon (p. 670).  
 THE use of water-glass for preserving eggs is fully described in an article on p. 673.  
 THE origin of Bland's pills (particularly interesting at present) is briefly told on p. 693.  
 IN MODERN BEEKEEPING Mr. W. F. Reid is an expert. His views will be found on p. 677.  
 IS IT WORTH WHILE? Replies in the affirmative have come from several correspondents (p. 689).  
 MR. PATERSON replies to Mr. Anderson Russell, and is backed up by his Aberdeen *confreres* (p. 691).  
 DONOVAN'S SOLUTION was thoroughly discussed by Mr. William Duncan at Edinburgh last week (p. 651).  
 A TESTING-HOUSE in London for commercial produce is suggested. Mr. J. C. Umney objects (p. 689).  
 EASTON'S SYRUP was first made by Mr. John McMillan, of Glasgow. The original formula is given on p. 667.  
 A CHEMIST'S ASSISTANT, who spent a summer in Strathpeffer, sends photographs and notes of the district (p. 666).  
 SCOTT'S EMULSION and several other proprietary articles have been put on the P.A.T.A. protected-prices list (p. 681).  
 "XRAYSER" makes some reflections on the evolution of chemical industry and observations on the *Daily Mail's* attacks (p. 671).  
 AT the North Staffs chemists' dinner Mr. Glyn-Jones hinted a possible compromise on the poisons question (p. 663 and p. 673).  
 MR. WILLIAM BASTICK, a member of the Pharmaceutical Council and Examiner in the fifties, is the subject of a sketch on p. 657.  
 THE MANUFACTURE OF CAPE ALOES is described in an illustrated article, for which we are indebted to Professor Tschirch (p. 664).  
 PROFESSORS H. G. GREENISH and DONALD MACALISTER have been elected honorary members of the Paris Society of Pharmacy (p. 649).  
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 MESSRS. PARRY and BENNETT, writing further about citronella oil, show that resin spirit (the new adulterant) has been exported to Ceylon (p. 689).  
 A LADY gets one of the Students' Corner prizes this month. Four tournament prizes are awarded, and a competition for juniors is announced (p. 643).  
 A SHEEP-DIP COMMITTEE has been appointed (p. 644). It may delay poisons legislation (p. 674). At any rate, this is a point which should be put to Mr. Hanbury at Preston (p. 678).  
 OLD SHEFFIELD PHARMACISTS have again afforded Mr. John Austin a fruitful subject of interesting reminiscence. An abstract of his paper is printed on p. 659, and the discussion upon it on p. 658.  
 THERE have been no important changes in the markets this week. Gentian, Chinese galls, ginger, cochineal, and nitrate of soda are higher. Agar-agar and Cartagena ipecac. are firmer, and copper sulphate, ammonia sulphate, and cream of tartar are easier. Cinchona sold at unchanged prices at auction on Tuesday, but quinine remains lifeless. A large auction of spices was held this week (p. 685).



## Corner for Students.

CONDUCTED BY LEONARD DOBBIN, PH.D.

Students, please note. All communications should be addressed to the Editor of "The Chemist and Druggist," 42 Cannon Street, London, E.C.

All communications and reports must bear the names and addresses of the writers, not necessarily for publication. The reports of those who ignore this rule are liable not to be dealt with.

### QUALITATIVE ANALYSIS FOR JUNIOR STUDENTS.

A MIXTURE of not more than three salts will form the subject of the next exercise in qualitative analysis. The mixture will comprise acids and inorganic bases occurring in the British Pharmacopœia, and is to be submitted to a thorough systematic examination, all its constituents are to be detected, and proof is to be given that the substances detected are the only constituents of the mixture.

Students' applications for portions of the mixture of salts (accompanied by a *stamped and addressed envelope*, not a stamp merely) will be received up to Tuesday, April 28, and the samples will be posted on the following day.

Students' reports will be received up to Saturday, May 9. Each report should contain a concise account of the work done, and should include a list of the constituents detected. In this list any substance regarded as an accidental impurity should be distinguished from the essential constituents of the salts composing the mixture.

The prizes in this series of analyses will be awarded only to apprentices or assistants who are preparing for the Qualifying examination of the Pharmaceutical Society of Great Britain or of Ireland, which fact must be attested on their reports. Others may obtain specimens of the salts, and their reports will be separately adjudicated, but they will be regarded as *hors concours*. Correspondents who do not state that they are preparing for a qualifying examination will be included in the latter list.

### REPORTS.

The solution distributed to students on March 25 was prepared by dissolving nickel sulphate, cobalt nitrate, and sodium acetate in water. The quantity of solution forwarded to each student contained about 0.6 gram of the mixture of dry salts, the approximate proportions of the salts being—

$\text{NiSO}_4$ ...	...	...	...	...	0.25 gram
$\text{Co}(\text{NO}_3)_2$ ...	...	...	...	...	0.20 gram
$\text{NaC}_2\text{H}_3\text{O}_2$ ...	...	...	...	...	0.15 gram

The solution also contained, as impurities, a small quantity of manganese, distinct traces of calcium and magnesium, and little more than recognisable traces of ammonium and of a chloride.

Samples of the solution were distributed to seventy-six students, and thirty-seven reports on it were received.

All our correspondents detected the sulphuric radical. The failures in the detection of the other radicals were:—(a) Metallic radicals: cobalt, 2; nickel, 9; sodium, 7. (b) Acid radicals: nitric, 9; acetic, 24. Only nine students detected the presence of manganese.

The pink colour of the solution indicated the probable presence of cobalt, while its peculiar brownish-black appearance when viewed in front of a white background was suggestive of a mixture of cobalt and nickel. When solutions of cobaltous and nickel salts are mixed in suitable proportions the rose colour of the one and the green colour of the other disappear, and a liquid is obtained which has the dark appearance alluded to. The complete removal of

nickel from the solution by means of ammonium hydro-sulphide was found to be rather troublesome by some of our correspondents, owing to the persistence with which a part of the nickel sulphide made its way into the filtrate. This difficulty can be dealt with very easily by adding acetic acid in excess to the dark filtrate, and then filtering again through a fresh filter-paper. The first precipitate contains part of the nickel sulphide, along with the zinc, manganous, and cobaltous sulphides, while the second precipitate consists of the remainder of the nickel sulphide.

The separation of nickel and cobalt is sometimes considered to be a difficult operation, but it is really capable of being effected very simply and rapidly. For the purposes of qualitative analysis it is not essential that both cobalt and nickel should be detected in the same portion of a solution; on the contrary, separate portions of the slightly acid solution obtained by heating the mixed sulphides with concentrated hydrochloric acid and potassium chlorate, evaporating almost to dryness, and then diluting, may be very conveniently employed for their recognition. To detect nickel in one portion of such a solution, potassium cyanide is added to it until the precipitate that is first formed has redissolved, after which further considerable excess of potassium cyanide must be added; potassium hydroxide is next added in moderate quantity, and then excess of bromine-water, and the mixture is warmed. The nickel is completely precipitated as black nickelic hydroxide, while the cobalt remains in solution as potassium cobaltcyanide. The presence of nickel is confirmed by examining the washed precipitate by the borax-bead test. To detect the cobalt, a solution is prepared by dissolving some potassium nitrite in dilute acetic acid, and then adding to it (rather than adding it to) another portion of the slightly acid cobalt-nickel solution. The mixture yields, either at once or after standing for a short time, a yellow precipitate of potassium cobaltinitrite (Fischer's salt), while the nickel remains in solution. The cobalt can be confirmed by examining this precipitate also, after washing, by the borax-bead test.

A number of students reported the presence of zinc, but we were unable to find any trace of this metal. In several cases the mistake was, without doubt, due to a precipitate which consisted of manganous ferrocyanide being taken for zinc ferrocyanide. It would appear to be less generally known amongst students than it ought to be that manganous ferrocyanide, like the analogous zinc salt, is white, and insoluble in dilute acids.

The number of students who overlooked the presence of the acetic radical was surprisingly large, considering that the quantity of this radical present was by no means small and that the indications of its presence were well marked. Thus, the odour of acetic acid was noticeable during the evaporation of the solution to dryness, and the ferric-chloride test was distinct in spite of the colour of the solution; while the ethyl-acetate reaction was also obtainable without difficulty.

Some of the chief difficulties in the analysis were concerned with the impurities present. No single correspondent succeeded in detecting all the impurities. The presence of the manganese was not recognisable by applying the sodium-carbonate and potassium-nitrate fusion-test to the original solution, while, on the other hand, Crum's test, or Marshall's modification of it, gave the permanganic-acid reaction easily. The calcium and magnesium were detected by the procedure which has been described in this column more than once within the past two years. Ammonium and the hydrochloric radical were present as minute traces only, but still they were detected by some of the most careful observers.



## PRIZES.

The First Prize for the best analysis has been awarded to  
JOSEPH TAIT, 15 Gladstone Terrace, Edinburgh.

The Second Prize has been awarded to

MARGARET C. WADE, 3 Randolph Place, Edinburgh.

*First Prize.*—Any scientific book that is published at a price not greatly exceeding half-a-guinea may be taken as a first prize.

*Second Prize.*—Any scientific book which is sold for about five shillings may be taken as a second prize.

The students to whom prizes are awarded are requested to write at once to the Publisher naming the book or books they select.

## MARKS AWARDED FOR ANALYSES.

Joseph Tait (first prize) ...	97	Wm. L. Love ...	77
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## TO CORRESPONDENTS.

**LITHIUM.**—It would have been well to test for calcium by means of the spectroscope in the precipitate produced by adding ammonium oxalate to the filtrate from the metals of the ammonium-sulphide group rather than in the original solution. This precipitate, when dissolved in a drop of concentrated hydrochloric acid, yielded a solution which gave a very distinct calcium spectrum.

**EDRITH, ELY, and Others.**—It was not possible to test satisfactorily for traces of iron in the original solution by means of potassium ferrocyanide and ferricyanide on account of the precipitates yielded by the large quantities of cobalt and nickel present.

**MECONIC.**—In applying the silver-nitrate and ammonium-per-sulphate test for manganese it is essential that the quantity of dilute nitric acid which is added should be small.

**ACETONE.**—In testing a precipitate for manganese by fusion with sodium carbonate and potassium nitrate, the mixture must not be too strongly heated lest any manganate at first formed be subsequently decomposed. It was possible to judge respecting the presence of traces of iron by comparing the tints of two equal quantities of the original solution to one of which a drop of potassium-thiocyanate solution had been added; but a separation showed that only the slightest trace of iron could be present.

**XANTHALINE.**—There was no reason, in the present instance, why traces of chloride should not be tested for by adding silver nitrate to a portion of the original solution acidulated with nitric acid. See the reply to "Meconic."

**VASOGEN.**—You include cobalt amongst the metallic radicals which you detected, but you omit to give any vestige of evidence to justify this. Heating a mixture on charcoal with cobaltous chloride cannot be regarded as a delicate test for traces of zinc or of magnesium.

**E. F. CARTER.**—Concentrated nitric acid added to a solution containing barium chloride is liable to produce a precipitate of barium nitrate and chloride—these substances being insoluble in concentrated nitric acid, although soluble in water. Your solution of ferric chloride probably contained too much free hydrochloric acid to permit of the formation of the red ferric-acetate coloration.

**B. G. S.**—Examine your black manganese oxide for traces of chlorides. If, as we suppose, you are studying for the Qualifying examination, you can compete for the prizes in the forthcoming junior competitions irrespective of where you are studying or when you intend to present yourself for the examination.

**INTERLAKEN.**—In our hands the bismuth-thiosulphate test failed to give any indication of potassium.

**ULMUS.**—We think the colour-change in turmeric-paper which led you to suppose that the borate was present was really due to

the action of concentrated hydrochloric acid on the paper. Try the effect of moistening a strip of the paper with this reagent and then drying. It is not unlikely that a solution purporting to contain cobalt nitrate might give a manganese reaction with the persulphate-test, as cobaltous salts are occasionally contaminated with manganous salts (sometimes, perhaps, accidentally; sometimes, certainly, by intention). See reply to "Meconic."

**ALCOHOL.**—See last sentence of reply to E. F. Carter.

**W. P. P.**—The precipitate obtained by adding sodium-hypochlorite to a solution containing potassium nickel cyanide is not green and does not consist of nickel hypochlorite. It is black and consists of nickelic hydroxide or oxyhydroxide. The precipitate which you obtained by adding calcium chloride to the original solution, and which you mistook for calcium tartrate, probably consisted of calcium sulphate.

**CORNUBIAN.**—In attempting to separate nickel and cobalt, you appear to have omitted to add the necessary oxidising-agent (sodium hypochlorite or bromine-water) to the alkaline solution containing potassium nickel cyanide.

**DURUS.**—It is not good analytical practice to add hydrochloric acid to a precipitate produced by silver nitrate in order to ascertain if it dissolves. Perhaps you wrote hydrochloric acid instead of nitric acid by inadvertence.

**NORTHUMBIAN.**—Chlorine-water which is to be used as a reagent for oxidising barium sulphite into barium sulphate must be free from traces of sulphuric acid. The latter is a common impurity in the reagent, and its presence can be ascertained by adding a few drops of barium chloride and allowing the mixture to stand for five minutes.

**J. D. B.**—A precipitate obtained in a separation, and supposed to consist of a nickel or of a cobalt compound, should always be submitted to a borax-bead or other confirmatory test. Magnesium salts give a crystalline (not a gelatinous) precipitate with ammonia and sodium phosphate. We are quite unable to explain your failure to detect the nitric radical.

**B. M. N.**—It is evident that in testing for metallic radicals of the hydrogen-sulphide group you did not sufficiently acidulate the solution which you saturated with hydrogen sulphide, otherwise you would not have obtained any precipitate at this stage. The presence in the solution of a considerable quantity of sodium acetate constituted an analytical trap which you did not manage to escape. The precipitate which you mistook for cupric sulphide consisted of cobaltous and nickel sulphides. Did you remove all except alkali metals before testing for potassium by means of chloroplatinic acid?

**G. K. F.**—Decolorisation of indigo-solution is not distinctive of nitrates.

**E. G. SWANN and C. V. SOUTHAM.**—If you treat a solution with sulphurous anhydride prior to saturation with hydrogen sulphide, you must remove the excess of the former very completely, otherwise the latter will produce a precipitate of sulphur. You appear to have obtained such a precipitate, and to have mistaken it for arsenious sulphide.

**GRAMO.**—You do not appear to have applied any test which could have revealed the presence of nickel.

**ASPIRIN.**—See reply to "Cornubian," and first sentence of reply to E. F. Carter.

**IRALAS and HEBRON.**—We have not been able to obtain the reactions which you describe as indicating the presence of thio-sulphate and benzoate.

**GUAIACOL.**—It is not evident why you omitted to apply any tests for cobalt, the metals of the barium group, the alkali metals, and nearly all the acid radicals.

## THE ANALYTICAL TOURNAMENT.

At the beginning of the winter session we offered a *first prize* of books value 2*l.* 2*s.*, and a certificate, to the competitor obtaining the highest aggregate of marks in the six analyses during the months November, 1902, to April, 1903, and a *proxime accessit* prize of books value 1*l.* 1*s.*, and a certificate, to the competitor obtaining the second highest aggregate of marks in the six analyses. Altogether, 107 students took part in the competition, and some excellent reports upon the analyses were received from a number of competitors. The exercise reported upon above is the concluding analysis of the tournament series.

The first place in the tournament has been attained by "Lithium" (Mr. Joseph Tait, 15 Gladstone Terrace, Edinburgh), with an aggregate of 535 marks, made up of 83, 82,



96, 94, 83, and 97, and to him the first prize has been awarded.

The second place and prize are taken by "Xanthaline" (Mr. Wm. Seatter, c/o T. & H. Smith & Co., 19 Duke Street, Edinburgh), with an aggregate of 529 marks, made up of 68, 92, 96, 84, 93, and 93.

In addition to the two prizes which were originally offered for competition, we have decided to make two other awards of certificates and books to the value of 10s. 6d. in each case. One of these awards falls to "Meconic" (Mr. Robert H. Martin, c/o T. & H. Smith & Co., 19 Duke Street, Edinburgh) as holder of the third position on the list, with an aggregate of 517 marks; and the other is made to "Acetone" (Mr. F. J. Watt, Hingham, Attleborough, Norfolk) on account of consistent progress during the tournament (aggregate marks, 515).

The gentlemen to whom the prizes have been awarded will kindly inform us what books they desire.

## English News.

Local newspapers containing marked items of news interesting to the trade are always welcomed by the Editor.

### Brevities.

A dispute among the workmen employed at the East Jarrow Chemical-works, owned by the Hedworth Barium Company (Limited), has resulted in the stoppage of the works.

The members of the Cambridge Pharmaceutical Association have been invited to hear a lecture by Professor Sims Woodhead on "Toxins and Antitoxins," in the New Museums lecture-theatre on May 1.

The Heckmondwike Chamber of Commerce has decided to support Mr. Dobbs in his attempt to alter the law restricting to chemists the sale of sheep-dips and other poisonous compounds used in agriculture.

A youth named Cockayne was remanded at Nottingham on April 22 on a charge of stealing seven bottles of essence of coffee and chicory, the property of Messrs. Newball & Mason, manufacturing chemists, Nottingham.

A Wigan bricklayer has been sentenced to six months' imprisonment, with hard labour, for throwing a paving-stone through a plate-glass window at the branch shop in Wigan of Boots, Cash Chemists, Lancashire (Limited).

At Liverpool on April 16, William Power (20) was given six months' hard labour for stealing a showcase, containing fifty sets of artificial teeth, valued at 20l., from the Lancashire Dental Institute, 28A Bold Street, Liverpool.

Dr. Edward Moore, formerly practising in Manchester, has been sent to prison for three months, with hard labour, for obtaining a box of surgical instruments by false pretences from the Surgical Supply Association, Market Street, Manchester.

At a meeting of the Cleckheaton Tradesmen's Association on Monday, it was reported that some of the chemists of the town were keeping their places of business open after regulation time, and a committee was appointed to interview the "disloyal" chemists.

Mr. F. W. Richardson, the Bradford city analyst, reports that during the quarter ending March 31 he examined 127 samples of food and drugs, and found only two cases of adulteration of drugs, these being a paregoric which contained less than half the official amount of opium, and a tincture of rhubarb which contained no glycerin.

At a committee-meeting of the Three Towns Chemists' Association, held on March 26, the Secretary was instructed to write to all members of Parliament in Cornwall, and Devon as far as Newton Abbot, asking for their support in favour of the Pharmacy Bill now before Parliament, and most satisfactory replies have since been received.

At Leven Petty Sessions on April 15, Thomas Burnham, grocer, Hornsea, was fined 2l. and costs for selling sweet nitre containing only 1 per cent. of nitrous ether. Defendant produced a letter from a firm of wholesale druggists in Hull, from whom he had purchased the drug, which stated that the sweet nitre was of the required strength when sent out by them eighteen months ago.

A well-dressed, middle-aged Russian, describing himself as "Le Prince Alexandre Makaieff," was committed for trial at Bow Street on April 18 on charges of stealing, amongst other things, a hair-brush, a bottle of perfume, and two sponges (value 3l. 7s. 6d.) from the shop of Messrs. George Waugh & Co., chemists, 177 Regent Street, W. On April 22 the prisoner was sentenced to twenty-one months' hard labour.

In the official list for the Easter sittings at the High Courts, the first item on the Crown Paper is the case of Farmer v. Glyn-Jones "for judgment," which will be given on Friday morning at 10.30. Amongst the cases for argument on appeal is Davenport v. Apollinaris Co. In the Supreme Court the fifth appeal in the Interlocutory List is that of Mrs. Josephine Beecham from the order of the President of the Divorce Division dated March 13; and the seventh is the appeal of the Saccharin Corporation (v. R. White & Sons, Limited) from Mr. Justice Farwell's order of March 23.

Mr. Justice Phillimore, sitting with a common jury in the King's Bench Division on April 20, heard an action by Henry Charles Gooseman, a chemist and expert in perfumery, in the employ of the Crown Perfumery Company, Fore Street, E.C., against Mr. A. J. Airey, a butcher of Lee, for damages for personal injury. The plaintiff was in his employer's motor-car on business in the neighbourhood of Lee, when a collision occurred with a cart driven by an employé of the defendant, and plaintiff was thrown out. The jury found for defendant, and judgment was entered accordingly, with costs.

### Sampling North London Drugs.

Blaud's pills have had the particular attention of Food and Drugs' inspectors in North London recently, and the Secretary of the Chemists' Defence Association informs us that samples of calamine, zinc powder (whatever that may be), and liquorice and chlorodyne lozenges are now being taken.

### Committee on Sheep-dips.

The Right Hon. R. W. Hanbury, M.P., President of the Board of Agriculture, has appointed a Departmental Committee to investigate experimentally and to inquire into and report upon—

1. The composition and essential constituents of efficient dips and other preparations for the treatment and dressing of sheep, and their effect upon the animal treated or dressed and upon the parasites and other organisms for the destruction of which they are used.

2. The methods in which such dips and other preparations should be employed, and the appliances and facilities requisite for the purpose.

3. The times and intervals at which sheep should be treated or dressed, regard being had (a) to the life-history and characteristics of the sheep-scab *Acarus* and of the other parasites and organisms of sheep which require external treatment, and (b) to the practical conditions under which sheep-farming is carried on in various parts of the United Kingdom.

The committee consists of Mr. Laurence Hardy, M.P. (Chairman); Sir Henry Hall Scott, Dr. Thomas E. Thorpe, C.B., F.R.S., Director of the Government Laboratory; Mr. J. Bowen-Jones, Professor John Richard Campbell, B.Sc., one of the Assistant Secretaries to the Department of Agriculture and Technical Instruction for Ireland; Mr. A. C. Cope, M.R.C.V.S., Chief Veterinary Officer of the Board of Agriculture; Mr. Matthew Flanagan, J.P., of Tomona, Tulse, county Roscommon; Mr. M. Hedley, F.R.C.V.S., Chief Inspector of the Department of Agriculture and Technical Instruction for Ireland; and Dr. William Somerville, one of the Assistant-Secretaries of the Board of Agriculture. Professor Winter, M.A., will act as Secretary to the Committee.

### Meeting Mr. Dobbs.

At a Council-meeting of the Plymouth Chamber of Commerce, held on Friday, April 17, the members were asked to



support Mr. Dobbs's resolution regarding the Poisons Committee's report, and asking the Government to bring in a Bill giving effect to it. Messrs. C. J. Park and Freeman W. Hunt, pharmaceutical chemists, who were very favourably received, explained the chief objections to the resolution, basing their remarks upon Mr. Walter Hills' minority report. In consequence the resolution was not passed.

#### Chemist's Sudden Death.

Mr. Tom Clifford Palmer, J.P., the only surviving partner of the firm of E. Palmer & Son, chemists and druggists, Grimsby, died on April 21 under painful circumstances. Shortly before Christmas last deceased had an acute attack of influenza, the effect of which produced neuralgic attacks with occasional insomnia. Mr. Palmer, however, attended to business as usual, and maintained his usually cheerful demeanour. On Monday night, April 20, after leaving his business, he went home to his private residence in Tasburgh, and shortly before midnight he had a hot bath and went to bed. Shortly afterwards Mr. Palmer became unconscious and died before medical aid arrived. On the following morning an empty bottle that had contained chloral hydrate was found in the bath-room. Mr. Palmer had been a public man for many years. Serving his apprenticeship with his father (the late Alderman Palmer, ex-Mayor of Grimsby), he was subsequently taken into partnership, and upon the death of his father some five years ago he took over the entire control. Mr. Palmer was a Justice of the Peace for the borough, and at the last election of the Board of Guardians was returned as one of the representatives for the Borough of Grimsby. He was also a member of the Pelham Pillar Lodge of Freemasons. He was for many years Secretary of the Constitutional Club, and took a prominent part in politics. He was the first President of the Grimsby Ratepayers' Association. At the more prominent of the social gatherings of the Grimsby Chemists' Association he generally contributed humorous musical items to the programme. He was married only some two and a half years ago, and much sympathy is felt for the widow and children.

At the inquest on April 22, Dr. Grimoldby deposed that he had made a *post-mortem* examination, and had come to the conclusion that death was due to an overdose of chloral hydrate. The jury found that death was due to misadventure.

#### Sheffield Notes.

Mr. J. T. Butterworth, of Manchester, who describes himself as a qualified chemist and druggist and licensed auctioneer, has during the past week occupied the stand outside the Punch Bowl public-house on the Moor. Our representative spent an instructive hour on Monday evening listening to the pearls of wisdom which fell from Mr. Butterworth's lips. He says he is going to cut out local pharmacists, and particularly Messrs. Boots. Orange quinine-wine, which he declared no chemist in Sheffield could buy wholesale under 2s. 1d. per bottle, he recklessly threw away for 1s. "Otto of roses" soap, the only other makers of which are Messrs. Pears (so we were assured), who charge 2s. 6d. per tablet, was generously disposed of at two tablets a penny. Mr. Butterworth's methods are mixed with a spice of humour, but he can also be tragic. He told a story of a poor fellow who was "caught" in the machinery, lost a limb, and, being prevented from following his "occupation," earned a living out of a half-crown book of recipes for poultry-spice, &c., copies of which were being thrown away, for this occasion only, at sixpence apiece.

The Wortley Board of Guardians some short time ago had a re-valuation made of the properties within their union, and some rude insinuations having been made that they were not supporting their valuers, the Clerk to the Assessment Committee has written to the local Press denying these statements. This has called forth a letter from Mr. George Harvey, of Chapeltown, in the course of which he says, "While I am asking a few questions I should like to ask Mr. Dransfield if Messrs. Newton, Chambers & Co. submit plans for all buildings they erect to the Plans Committee; and, if so, why the buildings such as the large new fitting-shop, Izal warehouse, new offices, and many other buildings erected and occupied since the valuation was made some three years ago, are not (at least, were not a month ago) upon the rate-books and contributing towards the

rates!" Mr. Harvey further asserts that the Assessment Committee have made a total reduction of 16.262% in the valuation of Messrs. Newton, Chambers & Co.'s various properties in the Wortley Union.

The death of Mrs. Jepson at Hathersage will bring back to many old Sheffielders, both in the drug-trade and out, memories of her late husband, notwithstanding the fact that he died so long ago as 1870. Mr. Jepson was in business in Cambridge Street from 1857 to the time of his death, and before that held the appointment of dispenser to the Sheffield Board of Guardians, at the munificent salary of 60% per annum. He had a very good prescribing business, and was (in common with many of his contemporaries) more like a medical man than a pharmacist, prescribing, visiting, and even, so it is said, giving death certificates. On setting up in business Mr. Jepson was followed at the union by Mr. Pringle, and on his death the latter took over the management of the business for Mrs. Jepson for about six years. In 1886 the business was removed to Rockingham Street, where it is now carried on by his son, Mr. X. Jepson, chemist and druggist.

#### Funeral of Mayor Farnworth.

The interment of Mr. Walter Farnworth, pharmaceutical chemist, Mayor of Blackburn, whose tragic death was reported in our last issue, took place on Monday in the family vault at the parish church. The funeral was of a public nature, and the wide respect in which the deceased gentleman was held throughout the town was shown by the vast crowds which lined the route of the procession to pay their last tribute to his memory. A procession of magistrates, town councillors, representatives of public bodies, and gentlemen of the town was formed in the Town Hall. It included representatives from the North and North-East Lancashire Chemists' Association—viz., Messrs. T. Critchley (President), R. L. Gifford, J. Needham, A. Garland, W. Wells, J. W. Aspinall, Lucas, and E. Highton. At the parish church Bishop Thornton, who had on the previous day paid an eloquent and mournful tribute to Mr. Farnworth, who was his churchwarden, was assisted in the service by the Rev. F. L. Shillito, the President of the Free Church Council, and at the vault the Bishop was assisted by the Rev. T. T. Lancaster, curate of St. John's, Heaton Mersey (brother of the Mayoress), the Rev. G. Boys Stones, vicar of St. Thomas's, Garstang, and the Rev. J. H. Wrigley, senior curate at the parish church.

Many letters and telegrams have been sent since Mr. Farnworth's death, both to the Mayoress and the Town Clerk, including a message of sympathy from the Lord Mayor and Lady Mayoress of London. Mr. T. Critchley, the President of the North-East Lancashire Chemists' Association, sent a letter of condolence, and Mr. R. L. Gifford, who was a member of the jury at the inquest on Friday, said on that occasion that the profession had lost an ornament by Mr. Farnworth's death, and every chemist in Blackburn had sustained a deep personal loss.

#### Contracts.

Barnsley Town Council has appointed Mr. Nash to be chemist to the Kendray and smallpox hospitals for the ensuing half-year.

Yarmouth Town Council have appointed Mr. C. E. Williams, chemist and druggist, of St. Peter's Road, to be chemist to the Corporation for the ensuing year.

The contract for drugs for Grimsby Hospital has been placed with Messrs. Burgoyne, Burbidges & Co., London, and that for dressings with Messrs. Robinson & Sons (Limited), Chesterfield.

At a meeting of the Isle of Thanet Joint Hospital Board on April 15, in connection with the drug-supply to the hospital, it was recommended that a local firm of chemists should be appointed amongst the tradesmen for the half-year. An amendment to the effect that the supply should be openly contracted for was lost by a large majority.

#### Chemists' Licences.

At the Middlesex Confirmation Sessions on April 18, four licences granted to chemists in the Brentford and Willesden divisions for the sale of wines were refused. Sir Ralph



Littler (Chairman) said if these were confirmed there was nothing to prevent chemists selling champagne, though they undertook not to sell anything but medicated wines. These undertakings were of no value. Where would this, if sanctioned, stop?

At the Liverpool County licensing sessions, on April 20, application was made on behalf of Mr. Charles Hare, chemist, Liverpool Road, Birkdale, for confirmation of an off-licence for wine. Permission was granted at the licensing meeting at Southport in February last. The applicant undertook to sell only medicated wine. The Chairman (Sir W. B. Forwood): Which to my thinking are just as bad as the others, if not worse. The licence was confirmed.

#### Petroleum Regulations Revised.

The daily increasing demand for petrol has induced the Home Secretary to issue revised regulations regarding the storage, conveyance, and use of this product. Local authorities are now enabled to grant licences for the storage of 60 gals. or less of petrol spirit on premises which, while not complying with Regulations 4, 5, and 6 of the new Order, are yet deemed to be suitable for the purpose by the local authority officer. In cases, however, where the owner of a motor-car does not take out a licence for the storage of petrol, he must comply with Regulations 4 to 7 of the new Order, which forbid, amongst other things, a storehouse being used as a dwelling-house unless it is shut off from any building to which it is attached by a substantial or fire-proof floor, and is provided with a separate entrance from the open air, distinct from that of any dwelling or building in which persons assemble. The prohibition against keeping petrol in a building within 20 feet of any other building or collection of inflammable goods is continued, and there are other provisions, requiring (a) all vessels used for holding or conveying petrol to be legibly labelled with the words "Petroleum spirit—highly inflammable," and (b) prohibiting the filling and replenishing of vessels with petrol in proximity to naked lights or fire. The revised regulations are obtainable from Eyre & Spottiswoode, East Harding Street E.C., price 1d.

#### A Chemist Wanted.

On the day before Good Friday, Mr. John Lawrenson, chemist and druggist, closed his shop in Stretford Road, Hulme, Manchester, and put the notice on one of the panels of the glass door, "These premises will be closed until Tuesday next." The shop has not since been opened, and on April 16, at the City Police Court, application was made before the Stipendiary for a warrant for Mr. Lawrenson's apprehension for the non-payment of poor-rates amounting to 9l. 19s. The applicant, from the overseer's office, alleged that Mr. Lawrenson left his premises on April 14, after selling his stock to a large firm of chemists. He believed Mr. Lawrenson was about to leave the country. Two bailiffs had been found in possession for a debt of over 80l. The application was granted.

#### A Dispenser's Death.

An inquest was held at Kettering on April 20, to inquire into the circumstances of the death of James Latham Rowley, who died in Mill Road, Kettering, on April 17, from angina pectoris. Mrs. Harris, of 9 Lady's Lane, Northampton, said deceased had no fixed place of abode. He was a registered chemist and druggist. [The name of James Latham Rowley does not appear in the Register of Chemists and Druggists for 1903.—ED.] Four years ago he left her husband's employ, having lived with them previously for eight years. P.C. Hornsey said he found 4½d. in cash and a quantity of papers in deceased's pockets. One was a letter from Mr. S. B. White, of Bromsgrove Street, Birmingham, relating to the engagement of deceased to do duty at Syston, near Leicester. A bag belonging to deceased contained a bottle in which was laudanum, and boxes of pills. He had made inquiries, but could find no trace of relatives. The jury returned a verdict of death from heart disease.

From inquiries made by the police, it appears that from October, 1902, to January 7 of the present year, deceased was in the employ of Mr. Robt. Barber, of High Street, Jarrow, where he left to take a situation with Mr. Bartlett, of Axbridge, in Somerset. About a month ago Mr. Barber received a letter from the deceased saying that he was

leaving Axbridge and going to another situation. Deceased had formerly told Mr. Barber that his relatives were all dead, and that he belonged to West Didsbury, Manchester. He served in India as an army dispenser for eight years.

#### A.P.S. and A.S.A., but not M.P.S.

On the window of 63 Moss Lane West, Moss Side, Manchester, the following notice appears:—

J. T. Butterworth, A.P.S., A.S.A., qualified chemist by examination, will offer this stock at such prices as will astonish you. Look at the window and judge for yourselves. Whatever you purchase, you will not be asked to purchase anything else. Every article has been carefully tested, and is guaranteed to answer the official test of the B.P. Some of these goods have been bought from the railway companies, and others from the executors of the late Mr. J. Shuttleworth, chemist and druggist, and cannot be repeated. These prices are taken to make room for new fixtures. I have been a qualified chemist and druggist for twenty-one years, and the goods I sell are equal to those sold by any other pharmacy. They are no better. I intend to do business with you. I have no old stock, having only been established three weeks. I also possess the licence of an auctioneer and valuer to the drug-trade, and my services have been in request in all parts of the United Kingdom. Analysis of any description undertaken on the most reasonable terms. Works and laboratory, Pentridge Mill, Burnley. Residence, 2a Stanley Street.

Mr. Butterworth's doings in Sheffield are referred to by our correspondent in that city. Mr. Butterworth passed the Minor examination in February, 1882.

#### A Sudden Death.

Jane Furniss (23), a married woman, died suddenly in Sheffield on Sunday morning, and an inquest was held on April 21 by the City Coroner. The evidence showed that deceased had suffered from an affection of the heart, and on Friday she called at Mr. John Williams's chemist's shop, 124 St. Philip's Road, for a bottle of medicine. Four doses of the medicine were taken, the last about 2 o'clock on Saturday afternoon. Miss Amy Williams stated in evidence that deceased complained of palpitation, so she gave her the usual prescription for the complaint. The composition of the medicine was read to the Coroner, who said he was satisfied it was perfectly harmless, it probably did neither harm nor good. A verdict of death from natural causes, probably heart-disease, was returned.

The Hon. Secretary of the local Pharmaceutical and Chemical Association has addressed a letter to the local Press, stating that the names of Miss Amy Williams and Mr. John Williams are not on the register of chemists and druggists.

The Mr. John Williams referred to is dead. He was registered as a chemist and druggist, and we understand that the business is carried on by the family.

#### A Question of Dosage.

An inquest was held at Minke, Carmarthenshire, on April 17, on the body of the three-year-old son of a collier named Edmunds. The child was taken ill at midnight on the previous Monday, and when the father returned from work at 4 o'clock next morning, he went for Dr. H. H. Lewis, of Ponyeats, who told him that he did not care to attend the case, as it belonged to Dr. Howells, the colliery doctor. However, after hearing the man's statement of his child's symptoms, he gave him two worm-powders, after taking which the child vomited. Dr. Howells afterwards saw the boy, who died on the Tuesday evening. Dr. Lewis said the powders contained 2½ or 3 gr. of santonin and about the same quantity of calomel. He did not consider there was anything harmful in the powders. Dr. John Howells said, when he called deceased was in a state of collapse and suffering from pain over the lower part of the abdomen. Witness came to the conclusion that the child had taken some poison or some irritant. The father said he informed Dr. Lewis that the child was suffering from pains in the bowels, and that the doctor had suggested that he must be suffering from worms, and gave him the two powders. Witness concluded from an examination of the urine that the powders contained santonin, and he was of opinion that Dr. Lewis, in giving two powders, containing each 3 gr. or 2½ gr. of santonine and the same quantity of calomel, gave an excessive dose, if taken within three or four hours of each



other, and even one of the powders would have been a big dose. He could not say with any certainty what was the cause of death, but his opinion was that it was due to the excessive dose contained in the two powders, or some other irritant poison, which set up inflammation of the bowels and bladder. The Coroner adjourned the inquest in order that a *post-mortem* examination might be made. At the adjourned inquest on April 21, Dr. Lewis, of Llanelly, who had made a *post-mortem* examination, said the cause of death was acute strangulation of the bowels. In his opinion the dose of *santonin* and *calomel* had nothing to do with death. The powders did not accelerate death, and he found no deposit of powders nor a trace of any. In any case the powders would not have done much harm, but the dose was certainly larger than was usually prescribed. From what he saw he was of opinion that strangulation was there before the first powder was administered. The jury returned a verdict accordingly.

#### Fires.

A fire occurred on April 15 in the upper portion of the premises of Mr. E. S. Wootton, J.P., chemist and druggist, of High Street, Margate. The fire-brigade quickly subdued the flames, but some damage was done by water.

On April 10 considerable alarm was caused by the discovery of a fire on the premises of Messrs. Carlton & Son, chemists, High Street, Horncastle. The outbreak occurred in the portion of the premises occupied by Messrs. Carlton's manager. The fire was fortunately almost entirely confined to a small staircase, only its early discovery prevented an extensive conflagration.

On April 20 fire broke out on the business-premises of Mr. Joseph Walters, chemist and druggist, in Northgate, Darlington, which resulted in damage being done to the extent of between 600*l.* and 700*l.* The origin of the fire was some camphorated oil which boiled over on the floor of the storeroom at the rear of the premises. One of the assistants attempted to extinguish the flames by throwing water thereon, but this only made matters worse. Owing to the premises being stocked with chemicals, the flames spread with rapidity, but were completely subdued in three-quarters of an hour, notwithstanding the difficulties encountered by the firemen in getting to work. The front cellar was filled with chemicals of an explosive nature, which, however, the brigade succeeded in keeping free from the flames. The damage to the interior of the premises is considerable. In the local papers appears the following advertisement: "Fire, fire, fire!!! Mr. Waters, chemist, was able to execute all orders left at 6 High Northgate from his branch-shop in Parkgate, opposite St. Hilda's Church."

#### The Week's Poisonings.

Since our last record eleven poisoning-fatalities are recorded, three being caused by oxalic acid, two by carbolic acid, and the others by chloral hydrate, strychnine (vermin-killer), sulphuric acid, hydrochloric acid, liquid ammonia, and another kind not stated. Of these, only two—the chloral hydrate taken by Mr. Palmer, of Grimsby, and hydrochloric acid, taken in mistake for whisky by a woman in Westminster—were accidental, the inquests in the other cases proving the intention to commit suicide. A printer's labourer in Holloway, whose mind had become unhinged, poisoned his eight-months'-old son and himself with oxalic acid; and the same poison was taken by a china-salesman of Islington. A Wigan tailor and a labourer's wife at Darlington each took carbolic acid, while the vermin-killer was swallowed by a young baker at Warwick, whose sweetheart had returned his engagement-ring. A labourer at Coundon deliberately drank a quantity of sulphuric acid, and an old woman at Wigan took liquid ammonia.

**A BIG FIRE.**—A Reuter's telegram states that on April 17 the premises of the Canadian Drug Company in King William Street, St. John, N.B., were burned out, with a loss of 16,000*l.* in goods, of which 13,000*l.* were covered by insurance, while the destruction of the building means a loss of 20,000*l.* The adjoining buildings and stocks were also destroyed, with the loss of another 20,000*l.* This is the second great fire within a fortnight at St. John.

## Irish News.

#### Pharmaceutical Society of Ireland.

The following are the results of the recent examinations held in Dublin:

*Pharmaceutical Assistant Examination.*—John Montgomery and J. W. Hatch passed. One candidate was rejected.

*Registered Druggist Examination.*—Margaret M. O'Flanagan, Wm. Doig, A. S. McDowell, and Wm. Salisbury passed. Three candidates were rejected.

#### A Poisonous Drink.

A few days ago, while engaged in limewashing the wards of the workhouse, a pauper inmate of the Linskeas Union came across a bottle of belladonna liniment which had been left on the ledge of one of the windows. He drank a considerable quantity of the contents and died in five minutes. A companion who also tasted of the liquid is seriously ill.

#### Dublin Exhibition.

Sir E. Hodgson, J.P. (Messrs. McMaster, Hodgson & Co. (Limited), Dublin), Sir James Haslett, J.P., Belfast, and Mr. Stanley Harrington, J.P. (Messrs. Harrington & Co., Cork), are amongst the committee appointed by the Industrial Conference in Dublin last week to arrange for the holding of an International Exhibition in Phoenix Park on a date to be fixed, and to form the proposed Institute of Commerce and Industry for Ireland.

#### Easter Vestries.

Mr. John Isaac Bernard, M.P.S.I., Dublin, has been appointed warden of the Parish of St. Andrews for the ensuing year.

The following have been elected select vestrymen:

Dr. P. Merrin, M.P.S.I., Dublin, St. Peter's Aungier Street, Dublin.

Mr. T. R. Lester, chemist, Patrick Street, Cork, St. Paul's Parish, Cork.

Mr. George D. Beggs, President of the Pharmaceutical Society of Ireland. Dalkey Parish Church.

Sir Edward M. Hodgson, M.P.S.I. (McMaster, Hodgson & Co., chemists), Dublin, Zion Church, Rathgar.

Mr. William N. Allen, ex-President of the Pharmaceutical Society of Ireland, Grangegorman Parish, Dublin.

Sir Thomas W. Robinson, M.P.S.I., director of Hayes, Conyngham & Robinson (Limited), pharmacist, Dublin, the Mairners' Church, Kingstown.

## Scotch News.

#### Business Changes.

We understand that Mr. J. B. McVittae has not sold his Langside business, as stated last week.

Mr. Peter Cowie, chemist and druggist, Largo, is opening a branch shop at Lundin Links, a rising locality about midway between Largo and Leven.

#### Edinburgh Chemists' Golf-club.

This club held their spring holiday competition at Gullane on Monday, April 20, in delightful golfing weather. Twenty-two members turned out and spent a most enjoyable day. Captain's prize and "Gibson Handicap Medal" won by Mr. Duncan McLaren, 98-10=88; second prize, Mr. H. D. Alexander, 93-4=89; third prize, Mr. A. J. Dey, 111-18=93.

#### Aberdeen Chemists, Please Note.

On April 18 the committee of the Central Banffshire Farmers' Club met in the Gordon Arms Hotel, Keith, and a communication was read from the Scottish Chamber of Agriculture inviting further support from the club towards

increasing the usefulness and influence of the Chamber, and requesting the club's attention to the sale of poisonous dips and insecticides. The Privy Council's Committee had issued their report on this subject, the Chamber reported, and, briefly, its recommendation was to have the effect of legalising the sale of sheep-dip, insecticides, and the like, containing poisonous ingredients, through the media of persons holding licences for the purpose, whether they may be pharmaceutical chemists or not. The committee had good reason to believe that it was strongly in the interests of agriculture to have the recommendations referred to passed into law. The meeting agreed to petition in terms of the committee's recommendation.

#### A Public Appreciation.

A ceremony of rather an unusual character took place at Pulteneytown, Wick, on April 6, when Mr. Kenneth Miller, chemist and druggist, was publicly presented with a silver salver and a purse of sovereigns by his fellow-townsmen "in recognition of his devoted and charitable attention to the healing of the sick during a long period of years." The testimonial was the outcome of a fund to which 2,000 people, rich and poor, in Pulteneytown had subscribed, and at the presentation ceremony testimony was given by various townsmen of the many philanthropic actions done by Mr. Miller in his lifetime. The Chairman said Mr. Miller's shop had been a kind of free hospital and dispensary before the establishment of the present Nursing Association and hospital. Mr. Miller, in his reply to the various eulogistic speeches, showed that he possesses, besides a kind heart, a well-cultured mind. His speech bristled with wit and poetic allusion, and he paid a high tribute to his old master, Mr. George Nicol, who had a varied and interesting career.

#### Dundee Notes.

Dundee chemists' assistants are making preliminary arrangements for a picnic early in June.

The Secretary of the Forfarshire Chemists' Association has just received an illustrated postcard from Mr. Charles Kerr, intimating that he arrived at Jerusalem on April 13.

Provost Ritchie Welch, of St. Andrews, died on Tuesday. It may be remembered that he welcomed the B.P. Conference to St. Andrews last August. He had a distinguished career in the legal profession, as well as in municipal and county affairs.

Sir Thomas Thornton, LL.D., the Town Clerk, on Monday afternoon, when opposite the shop of Messrs. James Hardie & Son, pharmacists, High Street, was seen to stagger, and was taken in a state of semi-consciousness into Messrs. Hardie's shop. Mr. J. M. Hardie did all that he could to revive him, pending the arrival of several medical men, and Sir Thomas was taken to his residence, where he died in the course of the evening, never having recovered consciousness. Cardiac syncope was the cause of death.

#### Glasgow Notes.

The advent of spring has revived the talk about a Glasgow Pharmacy Athletic Club. It is hoped that at last the idea with take practical shape.

According to reports from different parts of the city, the reversion to the old cutting system is now general, and the cutting is keener than before.

It has been definitely arranged that the King shall lay the foundation-stone of the new buildings for the Glasgow and West of Scotland Technical College.

Mr. John Lothian, Principal of the Glasgow School of Pharmacy, informs us that the proportion of his students who passed the Minor examination in Edinburgh this month was above the average percentage.

Opinions are divided as to the wisdom of approaching M.P.s to solicit their support for the Pharmacy Bill. Some chemists favour immediate action, while others counsel delay until the Bloomsbury oracle delivers itself.

A handsome specimen of *Agave attenuata*, a variety of the so-called "century plant," in the Glasgow Botanic Gardens, has flowered recently. The plant has been in the conservatory for over thirty years. The event has attracted much attention both from the public and botanists.

## French News.

(From our Paris Correspondent.)

**LIGHT-CURE OF ACNE.**—Finsen boasts disciples in France. M. Laredde informed the Paris Academy of Medicine that he had successfully treated eight cases of acne by phototherapy, not even a scar being left to disfigure the patient's face in any case.

**THE PRESIDENT IN THE LAND OF FLOWERS.**—M. Loubet when at Algiers visited several of the outer suburbs where *petite culture* is largely carried on. From Algiers to El-Biar the road is lined with villas occupied by the Anglo-American winter colony, which were gay with flags and flowers in honour of the President.

**"DANGER-SIGNALS."**—To avoid error with medicines, MM. Berger and Lœwy proposed to the Society of Therapeutics to employ large labels on the principle of railway signals. These labels, to be used on every bottle or box of medicine, are in three colours. White would signify "harmless," to be used by patient; green "caution," for use by attendant (nurse) or patient himself "if intelligent and conscious"; red "poison," absolutely forbidden to be used except by doctor.

**PARIS SOCIETY OF PHARMACY.**—At the April meeting of this Society Dr. F. B. Power's report of the International Conference and his study on the chemical composition of *Derris uliginosa* were laid upon the table. MM. Astruc (of Montpellier), Chaumeil, Pinard, and Warin were elected as French corresponding members; and as foreign members Professor Donald MacAlister (of Cambridge), Professor H. G. Greenish (of the "Square"), MM. Bruglants (of Louvain), Bührer (Clarens), Codina (Barcelona), Damberghes (Athens), Ghreshoff (Haarlem), Poulhon (Christiania), Reemers (Aarhus, Denmark), and Waller (Vexio, Sweden). The date of the centenary celebration of the Society was fixed for October 17, next.

**THE ASSISTANT PROFESSOR'S HARD LOT** was laid before the Chamber of Deputies by M. Cazeneuve, member for Lyons, during the discussion of the budget of Public Instruction. The *agrégé* or assistant professor is nominated to his post (Faculty or Superior School of Pharmacy) after examination for nine years. When a chair falls vacant, the professors vote. If the *agrégé* is elected, he becomes titular professor, and his future is secure. If not, he finds himself, at the end of nine years, and at 40 or 45 years of age, without a situation. A medical *agrégé* can perhaps form a practice, but a scientific specialist—chemist or otherwise—is lost. Sometimes he is retained in his functions, but this is a favour, not a right. No reply was given by the Minister of Public Instruction or the Director of Higher Education to M. Cazeneuve.

**EXPLOSION IN A PHARMACY.**—Adrien Caignon and Louis Muller, laboratory-porters at the Pharmacie Mimeur, 176 rue St.-Honoré, went down to the cellars of the establishment with a lighted lamp one afternoon last week. They had barely entered when a loud explosion occurred, dense smoke burst forth, and they emerged hastily, badly burnt. Carboys of ether and methylated spirit were stored in the cellar, and one after another was heard to burst with "a noise like heavy musketry." The terrified neighbours sent for the firemen. The chief difficulty in extinguishing the fire arose from the dense fumes. Sergeant-fourrier Robe (fireman) penetrated into the cellar with an oxygen bag, but fainted. Corporal Saure descended to his rescue, but also became senseless. Finally an adjutant extricated Robe, and Saure was also pulled out and brought to; but not until a powerful ventilator had cleared the air could the fire be got under. The damage was considerable.

**KING EDWARD'S APPROACHING VISIT TO PARIS** is naturally the subject of special interest in Anglo-Parisian circles. It may, indeed, be considered an historical event, as it is half a century since (in the days of the *entente cordiale*) an English Sovereign officially visited the French capital. The King has ever been popular here. In view of his visit, the British Chamber of Commerce have invited British residents and tradesmen to decorate during



his Majesty's stay, and have suggested that May 2 should be made a general holiday amongst Anglo-Parisians. Gala performances at the Opéra and the Comédie Française, the inevitable military review, and a race-meeting, are all French events; and although the brief and official character of the visit will hardly allow of much attention to the King's Parisian subjects, there is talk of massing the British children to sing "God Save the King" on his Majesty's arrival, and thus giving the younger generation the opportunity of seeing their newly crowned Sovereign. There are a certain number of Royal Warrant holders among the Anglo-Parisian tradesmen. Familiar alike to the Paris tripper and to readers of the *C. & D.* are the establishments of Messrs. T. P. Hogg & Co., chemists to the King. The senior partner, Mr. T. P. Hogg, exhibits the official document emanating from the Board of Green Cloth in his pharmacy window in the Rue Castiglione. Edward VII., as heir-apparent, usually stayed at the Hôtel Bristol, and visited the pharmacy on many occasions.

## South African News.

(From our own Correspondents.)

*Note.*—THE CHEMIST AND DRUGGIST is regularly supplied by order to all the members of all the Pharmaceutical Societies in British South Africa, viz.:—

SOUTH AFRICAN PHARMACEUTICAL ASSOCIATION.  
PHARMACEUTICAL SOCIETY OF CAPE COLONY.  
NATAL PHARMACEUTICAL SOCIETY.  
TRANSVAAL PHARMACEUTICAL SOCIETY.  
RHODESIA PHARMACEUTICAL SOCIETY.

**JOHANNESBURG NOTES.**—Messrs. P. J. Petersen & Co. have reopened their retail establishment on the Market Square at the corner of President and Fraser Streets. The premises have been fitted throughout by Messrs. Pugh & Co., of Cape Town, and have a handsome appearance, comparing very favourably with the leading pharmacies in the town. The management of the establishment is in the able hands of Mr. Gregg, who for the last three years has had charge of the firm's head pharmacy in Cape Town.—Business still remains dull.

**NATAL NOTES.**—There is a sense of general satisfaction in Durban at the result of the Inter-Colonial Customs and Railway Conference, although the details are not yet to hand.—The block of goods at the Point, Durban, still gives rise to innumerable complaints. Merchants in town are unanimous in declaring that the trouble is due to the short-sighted policy of the Government in not providing enough shed and wharfage accommodation, although the future prosperity of the port was fully indicated more than two years ago.—Miss M. J. Hannan, Messrs. A. J. Gibson, W. A. Peverley, R. D. Kidd, J. Petrie, and E. G. A. Niemeyer have been authorised to practise as physicians and surgeons in the Colony of Natal. Mr. Alfred Collins, chemist and druggist, has been admitted to practise as a chemist.

**SAMPLES IN SOUTH AFRICA.**—The Controller of Customs at Cape Town has decided, in regard to the Customs treatment of samples imported into Cape Colony, that samples of any intrinsic value are liable to duty. Duty is levied in the same way as on ordinary articles of merchandise, but in no case, when assessing duty, are special sample discounts allowed, but only the ordinary trade-discount. The Customs Department also receives deposits in respect of such imported samples as can be identified on re-exportation, but only for an amount in excess of the duty, and for a limited period. In Natal, if proof be given that imported goods are really samples a deposit to cover the duty is accepted by the Customs, and such deposit is returned on the goods being produced to the Customs on re-exportation. In the Transvaal, if samples are of commercial value a deposit is required at the first town the traveller bringing them alights at for business-purposes, of the amount of the import-duty leviable, *plus* 25 per cent. This deposit is returned when the traveller produces a booking-receipt for the transport of his samples out of the country. In the Orange River Colony a deposit of the amount of duty is accepted, and is refunded when the goods are submitted for re-exportation.

## Trade-marks Applied For.

Objections to the registration of any of the undermentioned applications should be lodged with O. N. DALTON, Esq., O.B., Comptroller-General of Patents, Designs, and Trade-marks, at the Patent Office, 25 Southampton Buildings, Chancery Lane, London, W.C., within one month of the dates mentioned. The objection must be stated on Trade-marks Form J, cost £1, obtainable through any money-order office.

(From the "Trade-marks Journal," April 8, 1903.)

"TRISCUIT"; for solid food products. By the Natural Food Company, Niagara Falls, c/o P. M. Justice, 55 Chancery Lane, W.C. 251,608.

"ODOURETTES" (no claim for "Odour"); for cachous. By Heath Brothers, 27 Blackfriars Street, Salford. 252,263.

"FONTALIS" and design; for a natural mineral water. By Camwal (Limited), 112 Pembroke Street, Caledonian Road, N. 251,903.

"BANALE"; for aerated waters. By W. McArthur, 19 Dixon Avenue, Crosshill, Glasgow. 252,350.

Device and signature for label; for ginger-ale. By Jewsbury & Brown, Ardwick Green North, Manchester. 251,959.

"MENDINE" (no claim for "Mend"); for a cement for glass, china, &c. By F. Hermann, 154 Frant Road, Thornton Heath. 253,090.

(From the "Trade-marks Journal," April 15, 1903.)

"DAMARLINE"; for chemicals. By Day and Martin (Limited), 49-60 Borough Road, S.E. 252,749.

Device of steamer once repeated; for photographic goods. By Ilford (Limited), Ilford, E. 252,580.

"PAINTOLENE" (no claim for "Paint") and "TURPAINTOIL"; for chemicals. By Alexander Fergusson & Co. (Limited), McAlpine Street, Glasgow. 252,773 and 252,774.

"SEPOL"; for photographic chemicals, and "ARTOS" ("Art" disclaimed), for photographic papers. By J. J. Griffin & Sons (Limited), 26 Sardinia Street, W.C. 252,841 and 252,840.

"PRESERVALINE" (no claim for "Preserve"); for food-preservatives. By the Preservaline Manufacturing Company, New York, c/o W. P. Thompson & Co., 6 Lord Street, Liverpool. 251,106.

"LAROLA"; for chemicals and common soap. By M. Beetham & Son, Imperial Lane, Cheltenham. 251,788 and 251,789.

"FERTO"; for disinfectants. By W. Smith & Co., Potter Grange, Goole. 252,348.

"FUCHSOL"; for insect-destroyers. By S. Fuchs & Co., Vienna, c/o Haseltine, Lako & Co., 45 Southampton Buildings, W.C. 252,672.

Labels for Dr. De Sanctis's rheumatic and gout pills. By Harriet M. Cleaver and E. T. Bell, trading as Edward Cleaver, 39 Great Portland Street, W. 250,967. Mark has been in use by applicants and their predecessors since 1862.

"FURONCULINE"; for pharmaceutical products. By La Zyma Société Anonyme de Bactériologie Industrielle, Montreux, c/o Wheatley & Mackenzie, 40 Chancery Lane, W.C. 251,553.

"NEUROSTAL" (no claim for "Neuro"); for chemicals. By Dr. Alwin Mueller, Leipzig, c/o F. Williams & Co., 83 Upper Thames Street, E.C. 252,062.

"CINNAKOL"; for chemicals. By José Baxeres de Alzugaray, 24/5 Suffolk House, Laurence Pountney Hill, E.C. 252,285.

"PHILOSOID"; for an alcohol-cure. By Kleo Friend, 90 Queen Street, Cheapside, E.C. 252,971.

"VEZO"; for foodstuffs. By Sutcliffe & Bingham (Limited), "Khovah" Works, Cornbrook, Manchester. 252,729.

"TATOSIN"; for foodstuffs. By H. Boehme & Co., 22 Crechurch Lane, E.C. 252,880.

"TIBE"; for foodstuffs. By Moyet & Co. (Limited), 14 Bedford Row, W.C. 252,914.

Combination of devices for Barnett's W. R. Eau de Cologne. By Barnett & Co., 126 Bristol Street, Birmingham. 251,677.

"SALUNDIA" (no claim for "Sal"); for perfumery, &c. By G. W. Goodwin & Son, Ordsall Lane Soap-works, Manchester. 252,143.

"SABOL"; for perfumery, &c. By the Vinolia Company (Limited), Malden Crescent, N.W. 252,897.



## Pharmaceutical Society of Great Britain.

### NORTH BRITISH BRANCH.

A MEETING of the Executive was held at 36 York Place, Edinburgh, on Thursday, April 16, Mr. Peter Boa in the chair.

#### THE UNIVERSITY SCHEME.

From the minutes of the General Purposes Committee it appeared that replies had been received from the four Scottish Universities with reference to the proposed B.Sc. degree in pharmacy. The University of Aberdeen expressed approval of the scheme, Glasgow and St. Andrews expressed general approval, but stipulated that the candidate should have passed the Minor examination before taking the Preliminary. The Senatus of Edinburgh University stated that a committee had been appointed to confer with a similar committee of the Society on the subject of the scheme.

The CHAIRMAN explained that this question of the Preliminary examination was the one that was likely to be most troublesome to get over. Some students wanting to take this degree might find it convenient to take out a class in the University or recognised college in order to take the Minor, and having passed it might want to have the class counted as attendance for the B.Sc. That was why they wanted consent to this class being taken out before passing the science Preliminary.

It was remitted to the committee to continue negotiations on the points of difference with the Universities.

#### THE POISONS COMMITTEE'S REPORT.

The General Purposes Committee's minutes stated that meetings had been held throughout Scotland at which the points of the Poisons Committee's reports were explained, and that at all the meetings resolutions to support Mr. Walter Hills's supplementary report were adopted.

#### THE ANNUAL REPORT.

Several matters were dealt with in committee, including the annual report to the Council, a draft of which was read and approved of. It appears that there is a reduction in the number of passes for the year, and that the number of country readers in the library is considerably increased.

It was agreed to fix Thursday, June 18 next, for the election of the Executive.

#### THE COUNCIL AND THE PRELIMINARY EXAMINATION.

MR. MABEN then submitted the motion of which he had given notice:

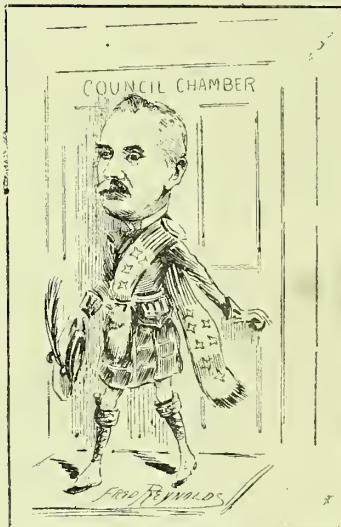
That the Executive respectfully suggest to the Council that circumstances seem to justify the conducting of a preliminary examination by the Society itself, and that the matter might be considered by the Council.

He said that if they had indicated the strength of their case and the strength of their feelings in the resolution it would have been much more strongly worded. But they did not want to alienate or frighten anyone at the offset, and had presented a resolution in inoffensive terms in order to get a calm, deliberate, and thoughtful discussion. The resolution dealt with the supply of raw material from which pharmacists were made, and with the future of the Society itself. If the supply of pharmacists were exhausted, the Society would ultimately cease to exist; but the converse was not equally true. He referred to the scarcity of chemists' apprentices. There were a few chemists who could still command the best apprentices, and at the other end there were men who took apprentices from the class of message boys and put them through their apprenticeship without realising their responsibilities to these lads. But the bulk of pharmacists were not getting apprentices. What was the cause? They were told that pharmacy was readjusting itself to present conditions and that more apprentices were being registered. The number registered since the last Preliminary examination held by the Society was 185. At the last examination 541 young men failed to pass, and assuming that these 185 came from the 541, what had become of the 356? Had these

young men given up the struggle, or had they been grinding these two-and-a-half years for the purpose of getting through the examination, or had they lapsed into the aggregate of unfortunate men who made so much illegitimate if not illegal business possible? They were told that chemical and electric engineering had taken a large number of likely young men. These occupations, so far as his experience went, did not take very many young men who would go in for

pharmacy. He did not think the love for athletics explained entirely the reason for the difficulty in getting apprentices, although long hours might partially be to blame. The cause was mainly education. His experience was that when boys who even liked pharmacy came to realise what they had to face in examinations they gave up the idea of following the profession and went in for something else. A generation ago there was no school without its class in Latin and mathematics. Up till two years ago the Scotch Education Department made a pretence of teaching Latin because it was included as a specific subject, but in the latest code there was

not a single reference to Latin either in connection with elementary or higher grade schools. The thing was absolutely discarded. The great mass of the boys throughout the country came to the age of 13 and 14 and did not know Latin. That had been going on for a number of years, and the raising of the standard had accentuated the difficulty. The fact was that pharmacy had been living on false pretences to a considerable degree. They had been narrowing the gateway of admission to the Society in order to keep up the idea that pharmacy was a profession. It might or might not be a profession, but the public were not so shortsighted as not to see that an honest trade with something at the end of it was better than entering a profession with the difficulties so great and the privileges and emoluments so few. What the Society should have done, and what he asked them now to do, was to keep the examination in their own hands instead of delivering it into the hands of outside bodies over whose examinations they had no control. These examinations were getting stiffer, and the Society could not interfere. He enlarged on this point, and on the suggestion of the CHAIRMAN the matter was left over for the next Executive to deal with.



MR. MABEN.

(The authority on the supply of the raw material.)

#### DAY SCIENTIFIC MEETING.

THE concluding meeting of the winter session was afterwards held, at which there was a good attendance of members. Mr. Boa again presided.

MR. WM. DUNCAN, Ph.C., F.C.S., read a paper on

#### LIQUOR ARSENII ET HYDRARGYRI IODIDI B.P.

He quoted the formula published by Donovan in the *Dublin Medical Journal* for November, 1839, and said the other formulæ which had since been suggested, with the exception of Soubeiran's, were similar, the only difference being in the quantities. Soubeiran, having failed to get all the arsenium into solution by Donovan's process, suggested solution of arsenious and mercuric iodides in boiling water as a more expeditious and successful method, which it certainly was. That was the process—solution of the salt in cold water—made official in the 1885 Pharmacopœia and



retained in the 1898 one. Donovan's was tedious, and the product more apt to liberate iodine than Soubeiran's, but both yielded solutions identical in composition, and practically in strength:—

*Donovan's Formula.*

Arsenium	...	...	6.08 gr.	= 0.173 per cent.
Mercury	...	...	15.38 gr.	= 0.439 per cent.
Iodine	...	...	50.00 gr.	= 1.428 per cent.
Alcohol	...	...	1	dr.
Hydrochloric acid	...	...	$\frac{1}{2}$	dr.
Distilled water to	...	...	8	oz.

*B.P. 1898 (Soubeiran's Formula).*

Arsenious iodide	1.0 gram	= 0.164 per cent. arsenium.
Mercuric iodide	1.0 gram	= 0.441 per cent. mercury.
		1.495 per cent. iodine.

Distilled water to 100.0 c.c.

Various statements had been made regarding the composition of Donovan's solution, but not one, so far as he could learn, was based on actual examination of the liquor. Donovan believed that the two iodides in the presence of water combined to form an iodide of arsenium and mercury—a compound analogous to Rochelle salt. The official title was in accordance with that view, but the English translation—"solution of arsenious and mercuric iodides"—conveyed the idea that it was a solution of the two iodides. Soubeiran believed that an iodo-hydrargyrate of arsenic was formed; Kane, that it was a solution of arsenic and mercuric iodide in hydriodic acid; Remington, that in dissolving no change occurred. The quantities prescribed were practically in the same proportions as the molecular weights of arsenious iodide 452.2, and mercuric iodide 450.6. That probably had suggested the idea of a double iodide. The author had prepared the liquor from the elements and from the salts, and had satisfied himself that the products were identical in nature; but for the purpose of this paper a quantity of solution was made by the official process from salts previously proved to be pure. Commercial arsenious iodide being so liable to vary, it was essential that  $\text{AsI}_3$  be used, as otherwise the liquor would contain either free iodine or be deficient in arsenic. The resulting liquor was distinctly acid, titration with  $\frac{N}{10}$   $\text{NaOH}$ , showing an acidity of 0.73 per cent., calculated as HI. Mr. Duncan then described experiments with 4 oz. evaporated in vacuo, 4 oz. evaporated by a gentle heat, and 4 oz. placed in a separator and washed repeatedly with carbon disulphide. The results indicated that Donovan's solution contains neither a double iodide nor an iodo-hydrargyrate, but is really a solution of arsenious oxide with a little undecomposed iodide, mercuric iodide, and hydriodic acid, the most of the acid being combined with the mercuric iodide, forming the soluble mercurio-iodic acid  $\text{H}_2\text{HgI}_4$ . He attributed the tendency of the liquor to become coloured to the hydriodic acid present, and said it can be prevented by neutralisation with alkali, but it is just as well to make the liquor as it is required.

DISCUSSION.

Mr. D. B. DOTT said Mr. Duncan had handled the subject, as he always did, in a very exhaustive and thoroughly scientific manner. They were apt to assume that salts dissolved in the form in which they exist, but changes frequently took place therapeutically as well as chemically, because the passing of the arsenious into the arsenic condition influenced the activity of the arsenium.

Mr. JOHN LOTHIAN said he had lately experimented to discover the best method of making arsenium iodide. He had tried fusing the elements together, but he often found free arsenium in the product, and he went back to the original process. Much of the iodide in the market contained free arsenium or free iodine. Hager's method of boiling and digesting with carbon bisulphide, and allowing the tri-iodide to evaporate, was very tedious, and the iodide was only sparingly soluble. In his original formula Donovan used the three elements, arsenium, iodine, and mercury, while Hebra gave arsenious iodide, iodine, and mercury. To have a satisfactory liquor they required something more definite than an iodide of arsenium to work upon.

Mr. TOCHER (Dumfries) moved a vote of thanks to Mr. Duncan.

Mr. DUNCAN, in reply, stated that he made the iodide

for his experiments from the foundation because he found that the commercial iodide was never twice alike. The most successful method which he found was decomposing arsenious chloride by potassium iodide, and then crystallising the product from this solution in carbon bisulphide, in which it dissolved to the extent of 1 in 15. He did not think Donovan's solution should be in the Pharmacopœia, as it was being prescribed under a misunderstanding.

LOCATION OF SALICIN IN WILLOW-BARK.

Mr. DAVID BROWN, F.I.C., F.R.S.E., contributed a note on this subject, which was read by Mr. Hill. It gave the results of experiments which Mr. Brown made with a large branch of *Salix purpurea*, which grew in his garden in the end of 1901. It was a male plant, and the experiments were undertaken to test an opinion he had formed that the bulk of salicin was located in the inner bark. The bark was air-dried, and consisted of three well-defined layers differing in thickness, colour, and taste. The whole bark contained 5.8 per cent. of salicin, the inner bark 11.3, the middle bark 8.0, and the outer bark 2.5. Samples of bark taken from the same tree in the spring of 1893 and in the autumn of 1894 were found to contain the following quantities of salicin: Spring, 1893, 7.38 per cent.; autumn, 1894, 6.66 per cent. That pointed to the presence of a larger percentage in spring, when the tree was bursting into vigorous growth, than in the autumn, when it had finished its year's work.

DISCUSSION.

Mr. DOTT said *Salix purpurea* contains an exceptionally large percentage of salicin, but is not obtainable in sufficient quantities for manufacturing purposes.

Mr. J. R. HILL said what Mr. Brown had found bore out the general statement made in the paper by Messrs. Potter and Jowett, which was read at the Dundee Conference, on the variation of salicin in willows. One thing that struck him very much in the paper of Messrs. Potter and Jowett was that they got very small percentages, and in many cases the species which was supposed to be used for the preparation of salicin was reported as yielding none at all, and they gave a very long list of the various species of *Salix*. He thought it would be very desirable to have these species submitted to a botanical expert, to determine whether the willow they worked with was the proper species, or whether they were not working a hybrid, which yielded a much lower percentage. The fact that they got a higher percentage in the spring bark suggested that the salicin in the economy of the plant acted as a stimulant or tonic, just as it did therapeutically.

Mr. THOMAS STEPHENSON suggested that the soil and climate might have something to do with the quantity of salicin, as in *cannabis indica*.

Mr. HILL said it was undoubtedly true that a light soil and a dry season made a very great difference in the percentage.

The thanks of the meeting were accorded to Mr. Brown for his paper.

Mr. PETER BOA, Ph.C., next read a note on

COMPOUND TINCTURE OF GENTIAN,

in which he gave the results of some experiments he had made during the last six months with this tincture with reference to its flavour. He referred to the falling off in the popularity of the tincture during the last few years, and attributed that to the tincture of the 1885 Pharmacopœia being spoiled by the menstruum being too strong in spirit, which took too much of the indigestible terpinous constituents out of the orange-peel. The tincture, in consequence, repeated, and patients said it did not agree with them. The menstruum in the 1893 Pharmacopœia, being weaker in spirit, remedied this, but the increase in gentian and the prolonged maceration made the tincture quite unpalatable. In the 1885 tincture the flavour was too much for the bitter, in the 1898 tincture the bitter was too much for the flavour. The compound infusion of gentian had increased in popularity. He never heard anyone say that it disagreed. Its success was due to the harmonious adjustment of flavour and bitter. It was a well-balanced preparation. Gentian was not a tonic like cinchona, for example. Its use was mainly as an appetiser and digestive stimulant, and in that



direction it had no rival among official bitters. To render it unpalatable therefore was to spoil it for its chief use. The little ante-prandial stimulant which custom sanctioned on occasion was discreetly medicated by just a "dash of bitters." His experiments as to the length of time of maceration made it evident that the product of even a short maceration—say, of twenty-four hours—while nicer than the Pharmacopœial tincture, was still unnecessarily bitter. Then he had the gentian reduced by half (1 oz. to a pint), retaining the other ingredients in unchanged quantity and macerated for twenty-four hours. The result was a very nice tincture indeed. The aroma and taste were excellent. It was bitter enough, but not so repellant as the official tincture, while the flavour of the orange and cardamoms was agreeably perceptible. The extractive from this tincture he found to be 2.92 per cent. He also made two determinations with the official formula and with a twenty-four hours' maceration of the full official ingredients with the following result: Pharmacopœial tincture, sp. gr. 0.9574, 4.603 per cent. residue; twenty-four hours tincture, sp. gr. 0.9639, 4.433 per cent. residue—a difference of only 0.170 per cent. residue. On testing the residues with a little water as to taste, the advantage in point of flavour in favour of the shorter maceration was even more noticeable than in the tinctures. The former was a clean bitter, the latter had a rank after-taste. From the results he had no hesitation in suggesting that in the next Pharmacopœia formula for compound tincture of gentian, the gentian should be reduced to 1 oz. to a pint, and the time of maceration to twenty-four hours.

## DISCUSSION.

Mr. STORRAR asked if Mr. Boa was satisfied that the difference lay in the gentian and not in the aromatics.

Mr. LOTHIAN asked whether wine of gentian would not suit the idea better than a tincture. These wines were very popular on the Continent, but they had the advantage of making the menstruum with a much smaller percentage of alcohol.

Mr. DAVID WATSON (Glasgow) said he had found that gentian macerated with sherry for forty-eight hours gave a bitter tonic much more palatable than the harsh-tasted tincture.

Mr. THOMAS STEPHENSON said that in India, where the natives were prohibited by their religion from tasting the juice of the grape, such tinctures were extremely popular, and the stronger the better.

Mr. C. F. HENRY said he never could understand why the old *mistura gentianæ* was deleted. It was a very agreeable preparation in fairly large request, and its agreeableness he believed was due to the presence of coriander-seed. Although it was not desirable to make the tincture palatable, he thought it should be made more agreeable. He had had the opportunity of tasting Mr. Boa's tincture, and it was a great improvement on the present Pharmacopœial preparation, which was certainly not at all agreeable to take.

Mr. MITCHELL (Inverness) thought it very desirable to improve the taste of the tincture. He suggested using the fresh orange-peel.

Mr. CUMMINGS (Dundee) said that in the United States Pharmacopœia the ingredients were powdered together so that the gentian absorbed the flavour from the cardamoms and orange-peel.

Mr. MABEN thought terpenes oil might be used instead of orange or lemon peel. It would keep indefinitely, and gave a very lively odour and flavour.

Mr. HILL said the striking thing was that a tincture made in twenty-four hours appeared to contain practically as much extractive as one macerated in seven days, showing probably that many of these processes might be reduced in time. Mr. Lothian's suggestion, and Mr. Watson's comment upon it, inclined him to utter a note of warning. He thought they were in danger of finding themselves in the position of their American cousins of becoming too great an extent vendors of tipples. That was why he thought there was a prudential reason for not adopting the name wine. If they called it tincture it was less attractive as a tippie. That was one of the dangers he saw in these very agreeable bitters which Mr. Boa resorted to. He suspected that at the present time the so-called medicated wines of chemists were used to a very large extent not by Indians debarred by their religion, but by other people not so far away, who

regarded themselves as being debarred from taking ordinary tipples, but felt themselves justified in using medicine which was neither more nor less than a tippie. They should protect themselves against becoming vendors of tipples lest the Inland Revenue authorities removed the facilities given for selling genuinely medicated wines.

Mr. BOA said he could not answer Mr. Storrar's question, as he had not experimented on that point. The old official wine was orange wine, which was very palatable, but not so nice as Mr. Watson's sherry. But he thought it was a pity to spoil good sherry by putting gentian in it. He agreed with Mr. Henry regarding the old mixture, which was free from the objection put forward by Mr. Hill. One of his samples was made with fresh peel, but he was not satisfied that it was going to be an improvement. Although it had a very nice flavour, it did not give the same sort of bitter as the dried peel, and as it was a question of bitter, he decided to adhere to the official peel. He did not agree with Mr. Maben's suggestion about terpenes oils. He omitted to mention his indebtedness to his pupil, Miss Jean Sinclair, for assistance in carrying out the experiments.

## A PRIVATE CONFERENCE

was held after luncheon on the Pharmacy Acts Amendment Bill. Mr. DAVID STORRAR explained its provisions, and remarks were made by Mr. W. S. GLASS, Mr. W. L. CURRIE, Mr. D. McLAREN, Mr. J. P. GILMOUR, Mr. DUNLOP, and Mr. HENRY. It was unanimously agreed to support the Bill and that steps be taken to secure the intelligent support of members of Parliament.

## COUNCIL PRIZES EXAMINATION.

THIS competition was held on Monday, April 20, when the following papers were submitted:—

## BOTANY.

(Time—10 A.M. to 11.30 A.M. Only four questions to be answered.)

1. Describe in minute detail the structure of a grain of wheat. Give also notes on the morphology of the various parts, and on their nutritive value as human food.
2. Give a general account of the effect of climate and external conditions on the form of the plant-body.
3. Describe the course of life and mode of nutrition of ascomycetous fungi, selecting as illustrations at least one saprophyte and one parasite, which should be named and described in detail.
4. Give a general account of the construction of the flower in the Ranunculaceæ, specifying also the leading modifications of it.
5. Describe how the gametophyte shows reduction as we pass from the pteridophyta to the seed-bearing plants.

## MATERIA MEDICA.

(Time—11.30 A.M. to 1 P.M.)

1. State the principal alkaloids obtained from cinchona-bark. Give a process for their extraction and separation. Name the principal varieties of bark, and say which are official.
2. Describe (a) the root, (b) the leaves of the belladonna-plant. Give the botanical name and habitat. State what alkaloids are obtained from the plant, and give the respective percentage contained in the root and leaves.
3. What are the characters of rhubarb-root? What are the geographical and botanical sources of the species from which it may be obtained? To what active principles are its properties due?
4. How would you distinguish the presence of (a) Seal oil in cod-liver oil? (b) The oil of eucalyptus amygdalina in that of E. globulus? (c) Styra in balsam of tolu? (d) Guaiacum resin in scammony resin?

## CHEMISTRY.

(Time—2 P.M. to 5 P.M.)

1. Give an account of what you know regarding compounds of carbon, silicon, and tin corresponding to the general formulæ  $\text{RO}_2, \text{M}_2\text{RO}_3, \text{RS}_2, \text{M}_2\text{RS}_3$ , where R may be either C or Si or Sn, and M may be either K or Na or  $\text{NH}_4$ . Give methods for their preparation, and indicate briefly their relations to one another.
2. Give methods for the preparation from acetaldehyde of its more important polymers, and state what you know as to their constitution and properties.
3. What volatile substance is formed on heating a mixture of potassium acetate and arsenious anhydride? Give an account of it and of its chief derivatives.
4. What reasons can you give against the formula  $\text{HO}$  for water taking  $\text{H}=1$  and  $\text{O}=8$ , and in favour of the formula  $\text{H}_2\text{O}$  taking  $\text{H}=1$  and  $\text{O}=16$ ? Give reasons for the acceptance of any generalisation or hypothesis necessary for your argument.



## MINOR EXAMINATION IN LONDON.

WE have received from the Registrar of the Pharmaceutical Society of Great Britain the following list of candidates who were granted certificates at the April examination held in London:—

Barker, Donald W. E., London  
 Baxter, Cyril H. M., Bourne  
 Beacher, Ralph E. O., Sheffield  
 Beale, Percy A. B., Northampton  
 Belton, John Pearson, Leicester  
 Bickley, Benjamin, Shrewsbury  
 Bisacre, E. J., Southborough  
 Blades, Harold Arthur, Leek  
 Blamey, Francis W., Truro  
 Buswell, Thos. H., Lutetworth  
 Carr, William, Preston  
 Carson, Robert Wm., Bradford  
 Clapp, R. J., Birmingham  
 Clarke, Thos. John, Tonbridge  
 Coghlan, Fredk. D., New Barnet  
 Collins, Joseph C., Nelson  
 Cooper, Herbert H., London  
 Cooper, Walter Mell, Sheffield  
 Cragg, William, Lincoln  
 Cranshaw, Walter W., Bingley  
 Dale, John George, Stockton  
 Dallimore, Frank, Ormskirk  
 Dinwiddie, Edw. J., Dumfries  
 Eadie, Walter, Doncaster  
 Eminson, Herbert, London  
 Evans, Nathaniel J., Laugharne  
 Evans, Wm. Ellis, Liverpool  
 Farnworth, Saml. Pass, Bolton  
 Field, William James, Reading  
 Furuess, Tom E., Chesterfield  
 Gibson, Geo. E., Southampton  
 Giddard, F. B., Bournemouth  
 Gough, John, Shrewsbury  
 Green, William, Westbury  
 Gregory, Edward, Stockton  
 Griffith, Robert Wm., Pwllheli  
 Halkyard, Geo. Wm., Manchester  
 Hardy, Charles, Barmby Moor  
 Harry, Charles, Okehampton  
 Heaton, Thomas, Accrington  
 Hewitt, Neville Charles, Cowes  
 Hockin, Arthur W., Dartmouth  
 Howe, Leonard Aug., Margate  
 Hoyle, Ernest, Birchvale  
 Huggall, John Robt., Sunderland  
 Humphreys, E. B., Goodmayes  
 Jeffrey, John Edwin, London  
 Jenkins, John D., Swyddffynon  
 Jones, Wm. Bowen, Llandilo  
 Kermode, John Wm., Castletown

Laddiman, Ernest J., Norwich  
 Lee, William, Nottingham  
 Low, William Arthur, London  
 Massie, Duncan, Crewe  
 Middleton, Herbert G., Askern  
 Miller, Edward, London  
 Mitchell, Alfred, Birkenhead  
 Mortimer, Harold, Cleckheaton  
 Nancarrow, S., Perranporth  
 Nolan, Walter, Manchester  
 Oakley, Frank, Lichfield  
 O'Callaghan, C. W., Nottingham  
 Opie, Arthur Thomas, Redruth  
 Peel, Wilfrid, Eiland  
 Phillips, George W., Cemmaes  
 Piddock, John Hurley, Tipton  
 Pinnington, Arthur, Bootle  
 Platin, Spencer H., Fakenham  
 Reed, Frederick H., Barnstaple  
 Richards, Philip D., Nantymoel  
 Roberts, John Owen, Towny  
 Rogers, Tudor R. A., Tarporely  
 Ruston, E., Richmond, S.W.  
 Salter, Francis S., London  
 Sellers, William E., Nafferton  
 Shilcock, Sydney J., Atherstone  
 Spantou, George F., Ramsgate  
 Sparkes, Wm. W. P., Hereford  
 Squires, Seth Steggall, Leicester  
 Steward, A. W., Sydenham  
 Stokoe, Thomas Joseph, Hay  
 Swaby, Harry C., Lincoln  
 Taylor, Wm. G., Bournemouth  
 Thomas, David Jenkin, Barry  
 Thomson, Mabel, Herne Hill  
 Tildesley, Robert W., Parkgate  
 Tolmie, John, Inverness  
 Tozer, Robert M., Salisbury  
 Tremlett, Percival G., Ryde  
 Trythall, Thomas A., Camborne  
 Walker, Bernard, Gainsborough  
 Ward, John F., Colchester  
 Webb, Albert Edward, Brighton  
 West, Francis P., Wadebridge  
 Whatmough, Wilfred A., Wigan  
 Wilkinson, Ernest E., Otley  
 Williams, Allan O., Pontypridd  
 Williams, James C., London  
 Wood, John, Ramsgate  
 Wood, John F., Rugeley

Lodge, Leeds, on April 22, partly as a result of having been knocked down by a cyclist near his home on the previous Sunday. Mr. Bedford, who was in his 79th year, was identified with many of the leading philanthropic institutions of Leeds. He retired in 1888, after a business career of forty-six years.

**BRIGGS**.—At 11 Houghton Place, Leeds, on April 16, Mr. Joseph Briggs, chemist and druggist, late of 19 Bridge End, Leeds.

**COLES**.—At Rivoli, Grosvenor Road, Bournemouth, on March 22, Mr. Alfred Case Coles, chemist and druggist.

**EDGELEER**.—At The Square, Petersfield, Hants, on April 17, Mr. William Bicknell Edgeler, chemist. Aged 61. Mr. Edgeler was one of the best-known business and public men in his district, and devoted himself for many years to the interests of his town. He filled every public office possible, and upon a Local Board being formed in 1893 he was its first Chairman. Under the Local Government Act of 1894 he was elected first Chairman of the Urban District Council, which gave him an *ex-officio* position as a county magistrate. He was a regular attendant on the Bench, and carried out the duties appertaining to that office with distinction and credit. On the day of his death he had presented as churchwarden the accounts of the parish church, and was re-elected. After returning home he lay down to rest, and, appearing faint, medical aid was summoned, when it was found that a busy career had been peacefully ended.

**GREENHALGH**.—Mr. John Greenhalgh, President of the Middleton Botanical Society, one of the oldest of its kind in the country, died at Middleton on April 15. Aged 71. Mr. Greenhalgh was well known throughout Lancashire in connection with botanical research.

**GRINDLEY**.—On April 16, at his residence, Zion Lodge, Rathgar, Dublin, Mr. George Howell Grindley, M.C.P.S.I., pharmaceutical chemist. Mr. Grindley, who was aged 65, had been for twenty-seven years a member of the Pharmaceutical Society of Ireland, and was for six years Treasurer. He was a freeman of the City of Dublin. He served his apprenticeship with Messrs. Boileau & Boyd, Bride Street, and afterwards entered into business on his own account in Westland Row. He always took the deepest interest in pharmacy and everything connected therewith, and has rendered valuable service in connection with the Council of the Pharmaceutical Society. The interment took place on April 20 at Mount Jerome Cemetery. The funeral was very largely attended, many representatives of pharmacy being present. The Council of the Pharmaceutical Society of Ireland was represented by the following: Mr. George D. Beggs (President), Mr. W. V. Johnston, Mr. Arthur Kelly, Mr. John Smith, Mr. W. F. Wells, and Mr. A. T. Ferrall (Registrar). Mr. Grindley leaves a widow and two sons, Mr. Howell Thomas Grindley and Mr. Edward Wm. Grindley.

**LAMBERT**.—At Askrigg, Yorks, on March 5, Mr. Thomas David Lambert, chemist and druggist. Aged 65.

**MARSHALL**.—Recently, at Newcastle-under-Lyme, Mr. Gervas Marshall, chemist and druggist. Aged 86. Mr. Marshall was trained for the Baptist ministry, and for some years he was co-pastor with the Rev. J. Harbottle, his tutor, at Accrington. A breakdown in health compelled him to relinquish the ministry, and he then commenced business as a chemist and druggist at Accrington, where he traded for a great many years. Subsequently he went into business at Cheadle, and only retired from commercial life in consequence of ill-health in June last.

**MASSEY**.—At Manorhill, Kelso, on April 17, Mr. James Michie Massey, chemist and druggist, 17 Square, Kelso.

**NEWTON**.—At Sydney, New South Wales, on March 3, Meta Rufenacht, widow of Mr. Christopher Warcup Newton, chemist, Edinburgh. Aged 77.

**ROBERTS**.—At Millom, Cumberland, on April 13, Mr. John Lyddon Roberts, pharmaceutical chemist. Aged 66. Mr. Roberts died somewhat suddenly after a short illness. He was many years in Millom, having purchased the business of Mr. Evans, and succeeding that gentleman as postmaster.

**ROBERTSON**.—At Preston Villa, Alloa, on April 16, Jane Young, wife of Mr. William Robertson, chemist and druggist, Alloa.

## Marriages.

**CARTWRIGHT—SAMSON**.—At the Parish Church, Baston, on April 11, by the Rev. E. Stanshall, Alfred Harry Cartwright, chemist and druggist, East Ham, Essex, to Belle, daughter of Mrs. Samson, Baston Hall, Stowmarket, Suffolk.

**PARKHOUSE—BENDALL**.—At Turnham Green, Congregational Church, by the Rev. J. Holmes, on April 9, A. E. Parkhouse, chemist and druggist, Ladywell, S.E., to Edith, second daughter of Mr. Edward Bendall, Manor House Farm, Ipswich.

**THORNTON—COATES**.—At Christ Church, Morningside, Edinburgh, on April 16, by the Rev. Charles M. Black, M.A., Robert Thornton, M.B., C.M., Dundee, to Ethel, elder daughter of Mr. Joseph Coates, chemist and druggist, Edinburgh.

**WILSON—WALKER**.—At Woodview, Uddingston, on April 14, by the Rev. Frank Rae, M.A., William Wilson, Belfast, to Eliza Maxwell (Bessie), only daughter of the late Mr. Thos. Walker, chemist, Uddingston.

## Deaths.

**BEDFORD**.—Mr. James Bedford, who was for many years associated with the Leeds firm of Messrs. Wood & Bedford, manufacturing chemists, died at his residence, Sycamore



## Legal Reports.

### High Court Cases.

#### A KODAK ACTION.

ON April 17 the case of the Kodak Company against Mayne was mentioned in the Vice-Chancellor's Court, Dublin. It is an action for infringement of a trade-mark in photographic films called "Bull's-eye," the defendant being a vendor of photographic requisites in Dublin. When the case was called, counsel for the plaintiffs said the case was under settlement, that the defendant was prepared to submit, and that when the terms were embodied in a consent his Lordship would be asked to make it a rule of court. The case was accordingly allowed to stand over for a week.

#### NAPTHA-SOAP.

THE action of Fels v. Hodgson & Simpson was before Mr Justice Buckley in the Chancery Division of the High Court on Wednesday. Mr. Waggett stated that as the point in dispute had been already litigated between plaintiff and other defendants, great expense would be saved if the case stood over until the appeal in the other cases had been disposed of. His Lordship asked if the parties were willing to abide by the result of the appeal. Mr. Waggett said the plaintiffs were willing, but the defendants were not. The point raised in the present case was the same as in the others. The appeal would be set down at once. His Lordship directed the case to stand over for a fortnight so that the appeal might be entered, and when this had been done, he said, he would be in a position to deal with the application for a special adjournment.

### County Court Cases.

#### NOTICE OF TRANSFER.

AT Folkestone County Court on April 16, Messrs. Shirley Brothers (Limited), druggists' sundriesmen, London, sued Mr. Edward J. Bishop, chemist and druggist, Folkestone, for 12l. 1s. 10d., due for goods supplied. The statement for the plaintiffs was to the effect that for some years they have dealt with defendant, who formerly had businesses both at Folkestone and Dover. The Dover business, which was wholesale, was carried on by the defendant under the name of Burroughs & Co. Defendant bought a business at Reading, and engaged the manager there to be his manager at Dover. There were sundry dealings in connection with that business, and it was contended by the defendant that the Dover business was disposed of by him to Mr. Higgins (the manager), who had assigned his business to his creditors, and that he (defendant) was not liable for the amount claimed. Mr. Edward Joseph Jeffery, secretary to the plaintiff company, said the sum claimed was due from defendant in respect of goods supplied to Burroughs & Co., Dover, of which business the defendant had always been recognised as the principal, and to whom credit was given. Witness had always understood defendant to be the principal until last October, when a letter was received from him stating that Mr. Higgins was about to make a deed of assignment to a trustee for the benefit of his creditors. Credit was given to Burroughs & Co. on the understanding that Bishop was the person responsible for the accounts. He denied having received any notice that Mr. Bishop had sold the business. In cross-examination, witness gave particulars of the cheques he had received in transactions with Burroughs & Co., from which it appeared that a cheque was sent signed by E. J. Bishop, "To balance account," and that subsequent cheques were sent by Higgins. Mr. F. C. Walker, traveller for the plaintiff company, gave corroborative evidence, stating that he was quite under the impression that the orders he received from Higgins were on behalf of Mr. Bishop. Defendant said he parted with his Dover business to Mr. Higgins in November, 1899, and gave instructions that all the wholesale houses should be notified of the change, and that any accounts owing should be sent in. A small amount was owing to the plaintiffs, and in June, 1900, he forwarded a cheque for it marked "To balance account," and he at the same time sent a letter to say it closed the account. In cross-examination he admitted that he had no agreement

with Higgins as to the transfer of the business, and that no money passed between them. He was positive that the plaintiffs were in the list of those to be notified of the change, but the list had been destroyed. The lady who kept the account for Burroughs & Co. bore out the statement that notices were sent out announcing the change of ownership of the business. The notice was to the effect that Mr. Bishop had disposed of his business to Mr. W. F. Higgins, and would no longer be responsible for orders, and asking that accounts owing to that date would be sent in. The witness also said that Walker always asked for Higgins when he called. On the orders witness wrote that Mr. Higgins was the proprietor, and his name was on the door. In the end Judge Sir W. L. Selfe said he was satisfied that the business was transferred to Mr. Higgins, and from what he had heard and seen, he thought plaintiffs had received ample notice. Judgment was given for defendants, with costs.

#### "ALL A MUDDLE."

AT the Whitechapel County Court, before Judge Bacon, Messrs. Tidman & Sons (Limited), Bushel Street, E., sued Miss A. Pearson, proprietress of a chemist's business at Bournemouth, for the balance of an account of 11l., on which 3l. had been paid by cheque, and the greater part of the balance made good by the return of scents, &c., by arrangement.

Defendant, a well-dressed lady, said the shop belonged to her mother. It had originally belonged to her stepfather, who died, her mother subsequently carrying on the business. Her (witness's) name was Florence Murray, and she was a married woman.

Judge Bacon: Why did you accept a summons at all made out to Miss A. Pearson, then?

Witness: The bailiff brought the summons to the shop, and left it on the counter. The bailiff asked for Mrs. A. Pearson, and she told him there was no Mrs. A. Pearson, and that the business belonged to Mrs. E. Pearson.

Judge Bacon: This is all a muddle from beginning to end. First of all, Messrs. Tidman's representative makes an affidavit, upon which a summons is issued against Miss A. Pearson; then another affidavit is made, and a summons is issued against Mrs. A. Pearson. There is no such person as Mrs. A. Pearson, and the only female Pearson is Mrs. E. Pearson, who has not been summoned. Why this young woman (Mrs. Murray) came at all, I cannot understand. Plaintiffs have made a mistake.

Judgment for the defendant.

### Sale of Food and Drugs Acts.

#### WHEN DOES A PROSECUTION START?

AT the Clerkenwell Police Court on Wednesday, April 22, Mr. A. T. Honniatt, chemist and druggist, 35 Junction Road, N., was summoned for selling, on March 5, a bottle of iron pills deficient to the extent of 40 per cent. in ferrous carbonate. Mr. H. Bramall prosecuted, and Mr. C. H. Kirby defended on behalf of the Chemists' Defence Association. Mr. Kirby raised an objection in connection with the institution of the proceedings and the service of the summons upon the defendant, who did not dispute the sale. The sample was taken, as stated in the summons, on March 5, and the summons was dated April 3, which would be twenty-nine clear days, not including the date of purchase. Under Section 19 of the 1899 Act the clause was very clear that "no prosecution shall be instituted after the expiration of twenty-eight days," therefore the present summons, being twenty-nine days, was wrong. The object of the clause was to prevent any unfair action being taken; for if proceedings were not started to the knowledge of the defendant within twenty-eight days in the case of perishable articles, what use would the portion left with the defendant be to him for analysis? In support of his contention, he said, there was the recent decision of another magistrate—Mr. Fordham—in a case against Taylors' Drug Company. There a sample was taken, but the summons was not served owing to the inability to get the defendants' correct address. Subsequently this was obtained and a fresh information laid, and the summons was served, but objected to. Mr. Fordham had ruled that the prosecution was started outside the twenty-eight days, and dismissed the case, with five guineas



costs. In that decision Mr. Fordham had laid down clearly his opinion that the twenty-eight days was specially fixed, as articles were liable to change in that period, and the defendant would be unduly handicapped to ask Somerset House to analyse his portion after that period.

Mr. Baggallay: Are there no authorities on this point?

Mr. Kirby: Mr. Fordham says in his decision there is not, but there are cases that closely resemble it.

Mr. Bramall said that he was unaware the point was going to be raised, or he would have come prepared to argue it. In the older Act it was said that the summons must be served within reasonable time, and twenty-eight days was only for perishable articles, which was not the case here.

Mr. Kirby: I beg pardon, it is; and in proof of that I would point out the report of the Council's own analyst, who states: "No change had taken place in the article to materially affect its analysis." That particular portion of the certificate has only to be stated for perishable articles.

Mr. Baggallay: I think Mr. Fordham's decision does not apply here. He held that the first summons failed, being not served; and the second was issued on fresh information which was laid after the twenty-eight days had expired. The second summons had the correct address, which was clearly only supplied on the fresh information.

Mr. Bramall said that he must hold that the prosecution was instituted within the prescribed twenty-eight days, for the information was laid on March 25.

Mr. Kirby: Laying the information is not instituting proceedings. What notice does the defendant get of that? He hears nothing until he is served with the summons.

Mr. Bramall said that the twenty-eight days' limit could not mean that the summons must be served within that period, for a defendant could easily quash all proceedings by evading the service, shutting his shop, or keeping out of the way. In ordinary proceedings the information was laid, and had to be laid, within a certain period; but the summons might be evaded for months. Substantially the question was, What does "instituting proceedings" mean? He contended that proceedings were instituted when the information was laid, and in this case that was done in about twenty days.

Mr. Kirby said that argument about evading service or shutting the shop could not apply here. That could only be with the defendant who knew he was going to be summoned; here the defendant did not know, and twenty-nine days went by before he did know, and he was left with a sample of a perishable article to frame his defence.

Mr. Bramall: The taking of the sample would act as a sort of warning, and a wise man would get his sample analysed.

Mr. Kirby: Why should he go to that expense until he knows he is to be prosecuted? You take hundreds of samples, but only prosecute in a small percentage of cases. Mr. Kirby, continuing, said that he would put a hypothetical case to refute the contention that the laying of the information constituted the starting of proceedings. Supposing a magistrate on reading the information declined to grant a summons, could anyone suggest that proceedings had ever been started? It could only be on the granting of the summons that the proceedings started, and that here was on April 3, the same day as it was served.

Mr. Baggallay said the whole point rested on what could be said to be the proper interpretation of what constituted the starting of a prosecution; or in other words, when were the proceedings instituted? To his own mind he interpreted the clause of Section 19, "That a prosecution should not be instituted after the expiration of twenty-eight days," to have been specially framed by the legislator to give a defendant every proper means of defending himself. With a perishable article, doubtless, twenty-eight days would be too long for analysis, and would make the result to vastly disagree with the analysis made by the prosecution. That being so, would the proceedings be said to start with the laying of the information, or not until the granting of the summons?

Mr. Bramall pointed out that legal proceedings could be started, yet a writ not be served for months.

Mr. Kirby objected to that argument, as he said the service of a writ was solely at the pleasure of the plaintiff parties, who could take six years by the statutory limit, but the granting and service of a summons was the act and discretion of a magistrate and not merely the whim of a

prosecutor. Suppose the defendant died after the information was laid but before the summons was granted, could it be said that a prosecution had been commenced?

Mr. Baggallay: Why not?

Mr. Kirby: When the man is dead.

Mr. Baggallay: So much the better for him, perhaps, in some instances. (Laughter.) Such a thing as the death of the defendant might easily arise, but that would end the matter.

Mr. Kirby: I say that no prosecution exists until he is served with the summons.

Mr. Baggallay: Oh, yes; for he may be at sea, or, unknown to the prosecution, buried at the bottom of the sea. He can be served at his last known place of abode. I do not mean the bottom of the sea. (Laughter.)

Mr. Kirby: I believe your Worship sees the point of my objection.

Mr. Baggallay said that undoubtedly the objection raised by Mr. Kirby was one of vast importance in these prosecutions under the Sale of Food and Drugs Act, and as the law provided that nothing should ever be placed in the way or hindrance of a defendant, it was most essential that the correct interpretation should be obtained of any clause, and more especially one that was clearly intended for the protection and benefit of a defendant. The prosecution argued that the institution of proceedings began with the laying of the information, whilst the defendant argued that it began with the granting or service of the summons.

Mr. Kirby: You see the defendant gets no intimation until then also, your Worship.

Proceeding, Mr. Baggallay said that in his opinion the institution of proceedings was when the first legal step was taken, and by the law the laying of an information was not only a legal step, but absolutely the unavoidable necessary step to obtain a summons. He must therefore hold that the proceedings were instituted by the laying of the information, which in this case was done within the time, and the objection failed.

Mr. Kirby: Will your Worship state a case, for it is a most important point that arises frequently in these Food and Drug prosecutions, and it is most necessary that we should have an authority.

Mr. Baggallay: If you ask I will most certainly state a case, for I agree that it is a most difficult point, and it is to the interests of all parties that the law should be laid down on the matter.

Mr. Bramall then proceeded with the case, and said that the Council analyst had certified that the pills were 40 per cent. deficient in ferrous carbonate, which was really the iron, and the real essence of the pill.

Mr. Kirby said that more iron did exist in the pills, though in another form, and asked for an adjournment in order that the reserve sample should be submitted to Somerset House. Mr. Baggallay adjourned the case for a month.

## Gazette.

### Partnerships Dissolved.

**Beckett, S. T., and Villey, F.,** under the style of Beckett & Villey, Keighley, Yorkshire, general medical practitioners.

**Burton, H., and Jenkinson, J. A.,** under the style of Burton & Jenkinson, Marple, Cheshire, and Marple Bridge, Derbyshire, surgeons and apothecaries.

### The Bankruptcy Acts, 1883 and 1890.

RECEIVING ORDER RESCINDED.

**Foster, Reginald Ne Leve,** Bredbury, Cheshire, chemical-manufacturer.

### Trust Deeds Granted.

**Re Duncan, Alexander T.,** 82 King Street, Aberdeen, chemist and druggist.—Claims to Mr. H. C. B. Forsyth, 173A Union Street, Aberdeen, solicitor.

**Re Murray, Adam Porteous,** 5 East Hermitage Place, Leith, formerly chemist, &c., in Larbert and Falkirk, lately sole partner of the Scottish Central Aerated-water Company, Leith.—Claims to Messrs. Barstow & Millar, 30 York Place, Edinburgh.



## Bankruptcy Report.

*Re* ASHMORE & SON, 38 Mincing Lane, E.C., and Wall Street, New York, Merchants.

THE adjourned first meeting of the creditors herein was held on Thursday, April 23, at the London Bankruptcy Court, before Mr. C. A. Pope, Assistant-Receiver. The statement of affairs shows gross liabilities 58,228*l.* 8*s.* 10*d.*, of which 10,057*l.* 19*s.* 6*d.* is expected to rank against assets valued at 2,527*l.* 12*s.* 7*d.*, after providing 76*l.* 1*s.* 5*d.* for the preferential claims. No offer was submitted by the debtors, and Mr. Sidney Pears (Cooper Brothers), George Street, Mansion House, E.C., chartered accountant, was appointed as trustee to wind up the estate in bankruptcy, assisted by the following Committee of Inspection, viz.: Mr. Aug. Brandt (Brandt, Son & Co.), Mr. G. A. Marshall (Marshall & French), and Mr. T. E. Carey Bates (Samuel Figgis & Co.). The public examination of the debtor is fixed for May 13.

## New Companies & Company News.

**E. C. WILLIAMS (LIMITED).**—Registered in Dublin. Capital 1,000*l.*, in 1*l.* shares. Objects: To acquire and carry on the business of teeth specialists, and the adapting and fitting of artificial teeth now carried on by E. C. Williams at 65 Duncain Street, Belfast. Registered office, 65 Duncain Street, Belfast.

**PEARSON'S ANTISEPTIC COMPANY (LIMITED).**—Capital 1,000*l.*, in 1*l.* shares. Objects: To carry on the business of dealers in disinfectants, and sanitary and medical compounds, &c. The first subscribers are: W. E. Pearson, Savoy Mansions, W.C., merchant; A. R. Pearson, 44 Rue Neufchâtel, Brussels, works manager; A. E. Pearson, Cliffe Ash, Golgar, solicitor's clerk; A. Blackburn, 132 Wakefield Road, Huddersfield, cashier; C. W. Dawson, Town Bottom, Meltham, shorthand writer; J. N. Bygott, 8 Norman Avenue, Birkby, Huddersfield, managing clerk; and J. M. Tate, 94 Springdale Street, Huddersfield, shorthand writer. No initial public issue. Registered without articles of association.

**WINCHESTER UNITED AERATED-WATER COMPANY (LIMITED).**—Capital 2,000*l.*, in 1*l.* shares. Objects: To carry on the business of manufacturers of and dealers in mineral, natural, and aerated waters, beverages, syrups, and cordials of all kinds, dealers in bottles, glasses, stoppers, and cases, &c. Minimum cash subscription, 500*l.* The first directors are T. F. Evans, A. Andrews, H. Garner, H. Gifford, J. Grassam, A. Russell, and C. Salter. Qualification, 20*l.* Registered office, The Factory, St. Clement Street, Winchester.

**FULHAM DENTAL PARLORS (LIMITED).**—Capital 500*l.*, in 1*l.* shares. Objects: To take over the business carried on by W. W. L. Whitlock at 531 Fulham Road, S.W., or elsewhere, to practise dentistry in all its branches, to carry on business as chemists, druggists, manicurists, chiropodists, and opticians, &c. The first subscribers are: W. W. Whitlock, artificial-tooth manufacturer, and Mrs. H. E. M. Whitlock, 531 Fulham Road, S.W.; L. Skinner, 257 Stanstead Road, Forest Hill, S.E.; A. G. Moon, 2 Westbourne Road, Forest Hill, S.E.; Mrs. C. Stent, Miss N. L. Nesbitt, and Miss E. Balfry, 527 Fulham Road, S.W. No initial public issue. The first directors are W. W. Whitlock (permanent managing director) and H. E. M. Whitlock. Qualification, 25*l.* Remuneration as fixed by the company.

**ILFORD (LIMITED).**—The directors have declared an interim dividend at the rate of 8 per cent. per annum for the half-year ending April 30.

**BORAX CONSOLIDATED (LIMITED).**—The directors are to pay an interim dividend on the ordinary shares of 5*s.* per share in respect of the quarter ended December 31, 1902, being at the rate of 10 per cent. per annum.

**SCHWEPPES (LIMITED).**—At the annual meeting held on April 17, the Chairman (Mr. C. D. Kemp-Welch) stated that the returns during the past year were, in spite of all adverse circumstances, the largest on record. He also announced that the directors proposed to invite subscriptions for 100,000*l.* "B" Debenture stock for the extension of the business.

**AERATORS (LIMITED).**—The general meeting was held at Winchester House, Old Broad Street, E.C., on April 16, Mr. H. V. Rudston-Read, chairman of the company, presiding. In moving the adoption of the report and accounts he referred to the economies effected during the past year by

the erection of the new factory at Edmonton. With regard to the fixing of the retail price of the new sparklet syphon at 2*s.*, he said the policy has already been justified, as the orders for bulbs indicate that the syphons are likely to remain consumers of bulbs to an extent which will make ample recompense for the reduction in the initial price of the apparatus. Inasmuch as the life of a syphon could not well be taken at less than two years from the date of its issue, the original intention was that the expenditure or loss involved in the scheme should be written off during a period of two years. The Board, however, have thought it better to treat this expenditure somewhat more drastically, so they have written off for the year 75 per cent. of the loss incurred on syphons issued during the first six months of the year, and 50 per cent. of that incurred on the syphons issued in the second six months of the year; the total written off on this basis amounting to 15,145*l.*, or, approximately, 75 per cent. of the total expenditure. He detailed the attempt made during the past year to float a new company, explaining that the abandonment of the attempt was due to the bad state of trade during the latter part of last year and the high terms sought by underwriters. Towards the end of last year, he said, the directors were confronted with the threat that a new sparklet bulb would be put on the market to compete with theirs unless a certain sum were paid to buy off the opposition. The directors, having been advised that the new sparklet bulb was an infringement of their patents, put the matter into the hands of the company's solicitors, and a writ was issued to restrain their opponents from further action pending the trial of the case. As a consequence of this writ a counter writ was issued by the promoters of the competitive bulb. The directors are advised that the patent in question is practically worthless, and that outside this fact there can be no possibility of infringement. The motion was carried unanimously, a dividend at the rate of 5 per cent. per annum being declared.

## Trade Notes.

**MESSRS. AYRTON & SAUNDERS** intimate that having removed all the stock of Messrs. H. Gilbertson & Sons (Limited), of London, to Liverpool, they are now in a position to supply customers with Messrs. Gilbertson's goods. All orders should now be sent direct to Liverpool.

**MR. R. GARDNER**, who has represented Messrs. Yardley & Co. (Limited) for some time in the West district of London, will visit Ireland on Monday, April 27. Any of our subscribers in Ireland who would like to see the samples which Mr. Gardner carries should send a postcard to his firm.

**PHOTOGRAPHIC CATALOGUE.**—Messrs. Evans Sons Lescher & Webb (Limited), Liverpool and London offer their revised edition of their illustrated price-list of photographic apparatus and materials. The list, which runs to 274 pages, is divided into sections, each dealing with a class of goods. The selection of articles is excellent and representative, the lines being such as sell readily to professional and amateur photographers.

**VOIGTLÄNDER'S** lenses, cameras, and accessories are the subjects of a new catalogue which reaches us from Voigtländer & Sohn, A.G., 12 Charterhouse Street, Holborn Circus, E.C. It is a beautifully-printed list, and contains the specifications and prices of the chief goods made by this well-known house. There are also in the catalogue chapters on choosing a lens and some capital reproductions of photographs. Our subscribers who deal in photographic apparatus should send for a copy of this list.

**NEW P.A.T.A. ARTICLES.**—The following proprietaries must henceforth be sold on the minimum-price basis: "Ish" (1*s.*), Atkinson & Barker's "Royal Infants' Preservative" (1*s.*, 2*s.* 6*d.*, and 4*s.*; see advertisement in this issue), Marmite (7½*d.*, &c.), Scott's emulsion (1*s.*, 1*s.* 11*d.*, and 3*s.* 8*d.*; see note on page 682), Dr. Morse's Indian root-pills (1*s.*), Kehotah Kidney Tea, and Petol preparations (including medical soap 10*d.*, toilet-soap 11*d.*, shaving-soap 10*d.*, shaving-cream 10*d.*, disinfectant-soap 5½*d.*, veterinary soap 5½*d.*, and salve 1*s.*; see advertisement in this issue).



## Pharmaceutical Veterans.

### William Bastick.

ONE day shortly before his death in 1859 Mr. Jacob Bell stopped his carriage at 22 Lower Brook Street, and went into the pharmacy there to bid good-bye to his whilom antagonist William Bastick. They chatted cheerily for a while, and when the two men shook hands for the last time Bell said, "I hope you will always stick to the Pharmaceutical Society." It is thirty years since Mr. Bastick retired from business, and he might have dropped his membership then, but Bell's words have always been fresh to him, and he pays the guinea cheerfully every year.

This incident has not been recorded until now, and it is worth remembering, first as showing Jacob Bell's constant regard for the organisation which he forged, and, second, because he recognised in William Bastick a pharmacist after his own heart, and such as the Society had need of.

The three years 1852-54 are not the least memorable in the history of British pharmacy. They are the period covered by *Annals of Pharmacy*, "edited by William Bastick and William Dickinson, members of the Pharmaceutical Society." There was no question about the object of the



WILLIAM BASTICK, Ph.C., J.P.

(An old portrait, but a fair likeness.)

*Annals*—viz., to expose Mr. Jacob Bell and all his works. The Pharmacy Act of 1852 was in embryo when the *Annals* commenced, and in the trade there was a feeling that the registration and protection of the whole body of chemists and druggists was the object which should be aimed at instead of the cultured few which the Bastick-Dickinson party imagined Bell's aim to be. The *Annals* gave voice to a somewhat widespread feeling against the exclusiveness of Bloomsbury Society, and in the course of the three years' struggle a British Association of Chemists and Druggists was formed, about whose existence the *Progress of Pharmacy* is silent. The objects of the Association were to establish a Royal College of Pharmacy and complete registration of all duly qualified chemists and druggists. The College was to be an examining and not a teaching body. The Association was founded on December 20, 1853, with Mr. Charles Linder, Strand, as the Chairman, and Mr. John Rossiter, Notting Hill, as the Hon. Secretary. It did not last long, but it is strange that half a century after its propaganda was published an almost similar principle has been advocated by a loyal member of the Pharmaceutical Society. Then

(1853) it was said, in view of the prospective separation of the practice of pharmacy from the practice of medicine, that "the establishment of a Royal College of Pharmacy would excite no such jealousies, would create no such difficulties, would offer no such obstacles" as a Pharmaceutical Society had done and would do.

But these things have been forgotten, and the co-operation of William Bastick and William Dickinson is merely an historical fact. Both men were thorough pharmacists in their day, and it is no reflection on Mr. Dickinson to say that his colleague was more gifted in scientific culture. Mr. Bastick had to carve his own way in the world. His pharmaceutical career began in the shop of Mr. Burfield, at the top of Norfolk Street, Strand. This was the business previously owned by Coroner Wakley, who founded the *Lancet*. He, however, traded under the name of Membury, and as he got on in the world cut his connection with trade. After his indentures were completed Mr. Bastick went, for the princely salary of 25*l.* a year, as dispenser to Messrs. Moore & Illingworth, apothecaries, Arlington Street, Piccadilly. They were apothecaries to the Royal Family, for the founder of the firm was Dr. Brande, who had come over with George II. as surgeon and apothecary, and his practice in the days of George IV. and William IV. was carried on by Moore & Illingworth with all the royal connection. There was no shop, however. Brande was a relative of Professor Brande, of the Royal Institution and the Apothecaries' Hall, whose lectures Mr. Bastick attended as he got the chance in those days of comparative poverty. They helped to whet his appetite for chemistry, and as he dispensed royal and other prescriptions in Arlington Street he had dreams of going to Giessen, whence the world flowed to the feet of Liebig. And his dreams were realised, for in the late thirties he had saved enough to take him to the famous laboratory. There he found Lyon Playfair just completing his course; Mr. Lloyd Bullock had been there, Hofmann was in the research department, and the English students included Sheridan Muspratt, Sullivan, and Bence Jones. Three courses of instruction were given by Liebig, or, rather, three sets of students were always working; but the first year's studies were practically the same, and the second year was devoted to research. Mr. Bastick could stay only a year, and during that time he made excellent progress, for he left the laboratory an expert analyst and well versed in German scientific literature. Liebig recognised his abilities by giving him a special testimonial. He returned to London about the time the Pharmaceutical Society was founded, with thoughts of getting from somebody a 500*l.*-a-year situation; but such places were even less plentiful then than they are now, and the Brook Street pharmacy was soon taken as the best means of utilising his abilities. There, in the course of thirty years, he made a sufficient competency to retire upon. It was done by utilising the special knowledge he had acquired at Giessen, by applying it to the improvement of pharmaceutical preparations, and thus attracting the medical specialists in the Brook Street neighbourhood to his pharmacy. He at once identified himself with the Pharmaceutical Society, and Jacob Bell, as early as October, 1843, got him to begin to contribute to the scientific meetings of the Society. One of his first researches was undertaken, at the suggestion of Liebig, in order to settle the question raised by a Berlin pharmacist as to the presence of hydrocyanic acid in spirit of nitrous ether. Mr. Bastick proved that it contains none. For twenty years he made occasional contributions to the Society; indeed, he was somewhat free at one time in giving away his prolific ideas, and if he had continued on his early lines he might never have retired. His business was high class. There were no "patents" in his shop, nor sponges, brushes, or anything else that was not strict pharmacy or allied to the legitimate practice of medicine; and, as he had no "friends in court," his personal skill had to be the attraction for practitioners and customers. He kept himself in touch with foreign literature, and was quick to adapt to pharmacy new advances in chemistry. In the forties he did a good deal of alkaloidal work, isolating active principles from arnica, green hellebore, colocynth, and lobelia. Through this work he was enabled to perfect a series of colourless liquors (*e.g.*, liquor hyoscyami) which were uniform solutions of alkaloids. These were shown at the 1862 Exhibition, the official catalogue stating that they



were "medicaments prepared by improved processes, which ensure their uniform therapeutic activity." Apparently they were the first attempt at standardisation upon the basis of the active principle. We notice that THE CHEMIST AND DRUGGIST said of the exhibit:—

Next to the Society's case is that of Mr. Bastick, containing some excellent *liquors*, and some valuable preparations of cod-liver oil combined with genuine iodide of iron and other therapeutic agents.

The first of the cod-liver oil preparations he made was cod-liver oil and quinine—a solution of the anhydrous alkaloid in the oil, the process for making which was communicated to the Medical Society in 1854; others followed, including the ferrous-iodide compound, and they all created considerable speculation until Mr. Bastick gave his method away. He had meanwhile built up a good business in specialities. Ammoniated solution of quinine did not originate with him, but with Mr. Bullock, whose process, however, was never divulged. Mr. Bastick's formula was published in the *Annals*, and consisted in dissolving quinine sulphate in proof spirit and adding ammonia solution to redissolve the precipitate. The solution was a great favourite with Dr. Bence Jones, whose patients were sent to Brook Street for it, and they cheerfully paid 4s. 6d. for the 4-oz. bottle. *Liquor ammoniæ valerianatis* was another of Mr. Bastick's introductions, and it is to him that we also owe *liquor calcis saccharata*, in which for many years he did a large wholesale business, the liquor selling at 6s. per lb. The Apothecaries' Company were good customers, as they supplied the Army and Navy.

Saving for the stormy period 1852-54, during which the Council resolved to expel Mr. Dickinson from the Pharmaceutical Society (a resolution which was promptly withdrawn), Mr. Bastick was an active supporter of the Society. He was a member of the Council for a year, and afterwards an examiner for several years; but the sensitiveness of his colleagues to the pungent criticisms in the *Annals of Pharmacy* compelled him to resign the examinership in January, 1854. Nevertheless he continued to participate in all the meetings at the Square, and when the *Annals* became a thing of the past he contributed to the Society's journal.

These reminiscences show that Mr. Bastick was no ordinary pharmacist, but a man of parts and a skilled chemist. In several directions he was a pioneer, and had he been content to "keep quiet" in regard to those things which he disapproved he might have reached high office in the Pharmaceutical Society. The recognition of his fellows was reserved for his retirement. After leaving London he and Mrs. Bastick sojourned in various pleasant places, until about eighteen years ago they settled down in the quaint old town of Buckingham. During his residence there Mr. Bastick became an alderman of the town, but latterly he has confined his public work to the duties of the county magistracy, and although he is a trifle deaf he looks hale and hearty. He follows pharmaceutical affairs in a desultory way, for our leaders now are unknown to him. Yet he is keen to know who and what they are, and is not disposed to say that the glory has departed from the pharmaceutical Israel.

**DENTAL ACT FINES.**—The amended Dental Act of Western Australia provides that every registered dentist shall pay to the Board in January an annual licence-fee of two guineas, and on failing to make such payment shall cease to be a registered dentist, but the Board may at any time restore to the register the name of any dentist failing to make such payment on receiving all arrears and on payment of such fines as may be prescribed by the rules. Rule 31 provides that the fines payable shall be 10s. for each month, or part of a month, elapsing from the end of the month on which the annual fee is payable by the applicant. On these provisions Mr. John Boileau was prosecuted at Kalgoorlie on February 16 for exhibiting the words "Dental Surgeon" on his window in Hannan Street. For the defendant it was submitted that money for licence-fees had been tendered, but the Board refused to accept the fees unless the amount of 10s. per month since 1896 was also paid. The resident Magistrate held that there must be a production of registration and receipts for this year, and inflicted a fine of 5s., with costs.

## Old Sheffield Druggists.

At a meeting of the Sheffield Pharmaceutical and Chemical Society on April 22 the President (Mr. John Austen) read a paper with the above title. The lecture was a continuation of one with the same title delivered last year (see C. & D., April 19, 1902, page 632).

MR. AUSTEN began his address by giving extracts from a diary written by John Acton, a druggist whose business was in Union Street, Sheffield. Acton was born at Wakefield in 1799, and was apprenticed to Geo. Hawksworth, druggist, High Street, Sheffield, in 1815. After a six-years' apprenticeship he became assistant to Mr. Geo. Jervis, of Westbar, for a year, afterwards going to Workshop for three years before finally settling in business in Sheffield in 1824. From his diary it appears that he began business with 250l., and soon succeeded in establishing himself in the confidence of the Sheffielders. He kept no assistant, but his sister seems to have assisted in the shop. Many entries in the diary are very interesting. Some days Acton tells what he has been doing, and the drugs he weighed up or preparations made. On December 29, 1836, for instance, there is an entry from which it appears that he had just bought a tincture-press and had been busy pressing the various marcs. A note affixed says, "I am pretty sure I have thrown 12l. away since I have been in business for want of a proper press, besides all the extra work, sore hands, and inconvenience." A full account is given of an inquest on a child whose mother gave it an overdose of "anodyne." The child was to have been christened on the Sunday afternoon, and the mother, to keep it quiet during the ordinance, gave it a teaspoonful of "anodyne" which she had obtained at Acton's shop. Acton seems to have satisfied the Coroner that he was not to blame. Ten drops, he told the Coroner, was the ordinary dose, and twenty drops would not have done any harm. The anodyne, for which the formula is given, was a kind of Godfrey's cordial. Some entries refer to wholesale houses. In 1839, for instance, Acton records that he received a catalogue of labels from Silverlock (then at Wardrobe Terrace) weighing under  $\frac{1}{2}$  oz., and that the postage was 4d., and a full account is given of a drive with Mr. Scissons, who was the Hull traveller for Messrs. Blundells. The drive was at 6 o'clock in the morning, and the two breakfasted together at the King's Head afterwards. Acton was at one time sworn as a special constable on the occasion of an election-riot. (Mr. Austen produced at the meeting one of the rattles which such special constables carried to make known their presence or to call assistance.) Acton married at the age of 53, and, after his marriage, gave up the Union Street business to Mr. Wilkinson, and removed to Buxton, where he opened a shop in the Crescent, which he continued until 1892, in which year he died, at the age of 93. Mr. Austen then went on to talk of some

### OLD HAYMARKET DRUGGISTS.

The first of these mentioned was David Doncaster, who commenced business as a chemist at 16 Haymarket in 1825. The shop had been opened two years previously by Edward Bingham. Doncaster was born in 1804, and was apprenticed to William West, of Leeds. He was delicate in constitution, and died in 1827. The contents of the shop were afterwards sold by auction.

John Savory was born at Hillingdon, Middlesex, in 1799, and was trained as a schoolmaster. He went to Whiston in 1821 to take charge of a boarding-school, and was apparently much esteemed, as in 1854 he was presented with a suitably inscribed gold watch. One of the pupils at the Whiston school was Henry Merryweather, from London, who was afterwards apprenticed to Mr. Sorsby, druggist, of Doncaster. Towards the end of 1840 the druggist's shop in Haymarket, No. 8 (afterwards No. 19) was advertised for sale by the proprietor, T. W. Powell. Mr. Savory thought it would be a good place for young Merryweather to make a start in, and at the same time a good investment for some of his own capital. He therefore took the business over, and had an assistant to manage it until Merryweather was out of his time in 1841. Merryweather, whilst at 19 Haymarket, studied quietly for the medical profession, and in 1857 took



his M.R.C.S. diploma, and, giving up his drug-business to Henry Newton, commenced a professional career as surgeon-dentist at 7 Surrey Street. In 1868 Merryweather took the London M.D. degree, and removed his surgery to Howard Street, where he remained until 1880, dying two years later from paralysis. The Haymarket business is the one now in the occupation of Mr. George Squire. It was established in 1831 by John Hay, who sold it in 1833 to J. B. Adams, who in his turn sold it to J. W. Powell, alluded to above.

#### OTHER OLD DRUGGISTS.

A few notes were then given about William Collier, who was born at Wisbech, Cambridgeshire, in 1806. He was educated at the Wisbech Grammar School, and then at King's Lynn. On leaving school he was apprenticed to Mr. MacDonald, chemist, Timber Market, Wisbech, and afterwards went to London to study for the medical profession. He went to Yorkshire as assistant to Dr. Shaw, of Attercliffe. Mr. Haldart, who kept a chemist's shop at Attercliffe, died about this time, and Mr. Collier took over the business, afterwards opening a second shop at the corner of what is now Kenyon Avenue. About 1837 he took the shop 79 Sheffield Moor, and gave up the other two shops. The new one was at the time the most modern and the handsomest in Sheffield. Each of the three sides of the shop had a central recess. The pilasters were painted like

Derbyshire, in 1785, and was brought up as a farmer. Farming, however, did not pay, and in 1815 he went to Sheffield to help his brother John in the drug-business. In 1820 he had made such rapid progress in the drug-trade that he commenced business in the shop in Broad Lane now carried on by Mr. Sutcliffe. In 1836 Webster took a house at the corner of Broomhall and Devonshire Streets, but continued to carry on the Broad Lane shop as a branch till 1839, when it was taken over by Matthew Darling. Webster retired in 1849, and died in 1853. His daughter, Ann Webster, married the late Mr. J. H. Appleton, druggist, Attercliffe. His eldest son, John Webster, became a druggist, and opened the shop at the corner of Young Street and Sheffield Moor in 1839, which was afterwards taken by Edward Wilson. Webster's shop at the corner of Broomhall Street was in 1849 taken, as previously stated, by William Collier, who in 1855 sold it to J. T. Swindel, who in turn disposed of it about 1861 to Mr. Huddleston. The last-named gentleman was the first Hon. Secretary of the Sheffield Pharmaceutical Society, and for several years had a seat on its Council. He gave up the shop in 1871 in favour of Mr. George Carr, and within the last few weeks the shop has been closed altogether. During Mr. Swindel's tenancy there resided on the opposite side of the street, at Crow Tree House, a Dr. Cheetham, and these two gentlemen came in for a good deal of friendly banter from the neighbours, chiefly on account of their suggestive

### THE THREE OLDEST CHEMISTS IN SHEFFIELD.



J. T. DOBB (72).

Commenced business May 12, 1852  
still in business.



G. B. COCKING (80).

Commenced business in 1846  
now retired.



WILLIAM CLAYTON (75).

Commenced business in 1854;  
now retired.

marble, and had gilt capitals. A solid mahogany counter ran along one side, not varnished or polished, but kept bright with turpentine, beeswax, and elbow-grease. At right-angles to this was a shorter counter, also of solid mahogany, but furnished with two lids, under which were four tanks containing sweet oil, whale oil, linseed oil, and boiled oil. The shop-drawers, of which there were many, were also cut out of solid mahogany. The wood was purchased in the plank, and everything was made by cabinet-makers in the shop. It took six months to fit up this shop. It speaks well for the workmanship of those days, for after a lapse of sixty-five years the drawers are still perfect, and doing duty in the shop of Mr. George Squire, of Sharrow Lane. One who remembers the old shop says the window was a glory in itself. It contained no fewer than twelve carboys of coloured liquids, and in the bottom of the window there was a choice collection of silver-capped smelling and other fancy toilet bottles. Collier took a second shop at the corner of Broomhall and Devonshire Streets, lately in the occupation of Mr. Carr. He retired from business in 1866, and died in 1872. Collier was an ardent Dissenter, and in politics a Radical, his Radicalism being tinged with Chartism from his intimacy with Isaac Ironside, Ottley, and others.

Thomas Webster, druggist, was the elder brother of John Webster, of Fargate, Sheffield. He was born at Barlow Lees,

surnames. The situation, however, became rather more serious, and bore a much more tragic aspect, when it became known one day that Cheetham had eloped with Swindel's wife.

Matthew Darling who took over Webster's Broad Lane business was born in 1818 at Ecclesfield. The Darlings are an old Ecclesfield family, and seven generations are recorded as having been buried in the old churchyard of that village. Matthew Darling served a seven-years' apprenticeship with William Collier. In 1839, on taking over Webster's business, Darling married Miss Downend the daughter of Sheffield's first tax-collector, and when the latter gentleman gave up that office about the year 1847, Darling gave up the drug-trade and took to tax-gathering. He was a keen sportsman and a strong swimmer, and was instrumental in saving three lives from drowning. One of the persons saved was James Riles, of Solley Street, who afterwards always sent him a load of coals at Christmas. Darling died in 1892, aged 74.

Henry Cockayne, druggist, 22 Angel Street, was a younger brother of the founders of the firm of T. B. & W. Cockayne. He was born in 1820, and was apprenticed to George Jervis, Glossop Road. In 1843 he commenced business in Angel Street opposite his brothers' drapery establishment. He gave up business in 1848, being possessed of considerable private means.

Edward Wilson, chemist and druggist, was born in Shef-



field in 1825, and was apprenticed to Mr. Wheen, Westbar. On completing his apprenticeship in 1846, he took the shop at the corner of Young Street and Sheffield Moor which had been carried on by John Webster, jun., as mentioned above. In 1850 Wilson built the block of buildings at the corner of Cemetery Road and London Road and removed his business thence. In 1870 he was elected second President of the Sheffield Society. During his year of office he presented several valuable books and pieces of scientific apparatus to the library and museum of the Sheffield Society. He was a collector of old china and a well-known connoisseur of engravings. In 1877 Mr. Wilson retired from business in favour of his nephew, Mr. Alfred Wood, and eventually, after a short period in London Road, the business was removed to Eccleshaw Road where, a few weeks ago, it was closed altogether. Mr. Wilson died in 1882.

#### SHEFFIELD'S FIRST ANALYST.

James Allan, M.A., Ph.D., although not a druggist, was nevertheless so intimately associated with the druggists of Sheffield that a few words about him come within the scope of the paper. He was the younger son of Robert Allan, a surgeon of eminence in Edinburgh, and was born in 1825. He began his education at Dumfries High School, and from there went to Glasgow University, where he attended the lectures of Professors T. and J. Thomson. Then for six years he studied at Edinburgh, Giessen, and Berlin under Jamieson, Magnus, Mitscherlich, Müller, and Liebig. Dr. Allan began in 1849 to practise as a professional chemist in Manchester, but in 1854 removed to Sheffield, where he lectured on chemistry, physics, and mechanics, and also conducted a private analytical practice. In 1864 Dr. Allan advertised for an analytical assistant, and the result was that Mr. Alfred H. Allen, the present esteemed city analyst, then went to Sheffield. As the practice increased a house was taken in Surrey Street, where a laboratory was fitted up, and Dr. Allan and Mr. Allen lived together like brothers, although as a matter of fact quite unrelated. Dr. Allan's time was largely taken up with the day classes at the Wesley College and the Collegiate and Medical Schools, Mr. Allen attending to the analytical practice and conducting some of the evening classes. Dr. Allan was in 1834 elected President of the Sheffield Literary and Philosophical Society, and contributed several papers to the evening meetings. In 1865 he was elected President of the local branch of the United Society of Chemists and Druggists. Dr. Allan died in 1866 from the effects of a severe chill caught through being out in a snowstorm. An unsuccessful tracheotomy was performed, and on his deathbed he made a will by which the residue of his estate, goodwill of his analytical practice, and apparatus were bequeathed to his esteemed assistant, Mr. A. H. Allen. Mr. Austen paid a tribute to the splendid qualities of Dr. Allan.

Joseph Ibbotson, druggist and dental surgeon, was born at Hathersage in 1835. At the age of 14 he was apprenticed to Henry Hewitt, 61 Westbar Green, Sheffield, but ran away to sea after a year or so. Returning to Sheffield, he completed his apprenticeship, and became manager of Mr. W. V. Radley's branch shop in Washington Road, returning to his old master as assistant twelve months after. In 1857 he married his master's sister, and commenced business in Clarence Street. Ibbotson opened another shop at 87 Ecclesall Road, and in 1887, owing to ill-health, was obliged to give up business, transferring it to Mr. Percy Carr, who now has it. He died in 1891. The Ibbotts have been for many generations a highly respected Sheffield family. Mr. H. E. Ibbitt, the present representative of the family, has been in business as a chemist and druggist for forty years. His great-grandfather, a silver-chaser, went to Sheffield in 1764, and was employed by Joseph Hancock, the first maker of large silver-plated goods. Mr. Austen then gave an interesting review of the invention and early beginnings of the celebrated Sheffield plate. Ingots of silver-plated copper were rolled into sheets, and from these teapots, waiters, tankards, &c., were made. The process was invented by Thomas Bolsover in 1742, but much improved by Joseph Hancock, his apprentice. Mr. H. E. Ibbitt was born in 1840, and was apprenticed at the age of 16 to Mr. Jas. Taylor, Barnsley. In 1863 Mr. Ibbitt opened a shop at the corner of Clarence Street and Oxford Road (now Moore Street), and in 1874 purchased from Mr. J. C. Robinson the business

which Mr. Fred Maunder opened in 1846 at the corner of Meadow and Hoyle Streets.

Mr. Austen concluded his interesting paper with some stories of old Sheffield druggists, and explained the various relics and portraits he had brought to illustrate the lecture.

## The Himalayan Chemist.

(A Leaf from a Traveller's Note-book.)

OVER the mountain-crest we came. Behind, "the stainless snows of huge Himāla's wall," tipped with the rosy glow of the tropical sun, ere it dropped into the "Great Black Water" beyond Bombay, and we, over whom the shadow of night had already fallen, turned to look at Kinchanjunga's peaks still catching the gleams of day before we plunged into the jungle and bamboo-brake beneath. "Where does the Sahib live?" we again ask our Tibetan guide. "Neehee, nechee Azur" (Below, your honour) is the monotonous reply. For we are longing to hear our mother-tongue, and see a clean-washed English face again. We had left the beaten track at Sonada (the bears' den) to spend the night with a pukka Sahib (real Englishman) who kept a dewai-khana (drug-shop), and who, we were told, had power over all the disease-devils, but specially a charm against the great black fever-devil who claimed so many victims in the malarial valleys through which we were passing.

Slipping and twisting ever downward through the gloom, we were rewarded by seeing lights ahead just when our faith in the reliability of the guide had evaporated. Spurring our tired steeds into the ambling trot of all native-broken horses, we soon found ourselves at a large two-storeyed bungalow, and our shouts of "Qui hai?" (Who is there?) soon brought a Ghurka chuprassie salaaming to the verandah, followed a second later by a tall, muscular man, evidently, at a glance, a fellow-countryman, who "bade us enter." The neat rows of gilt-labelled bottles and glazed cupboards were a treat to our eyes, and mag. sulph. and pot. bic. positively winked at us as old friends across the room.

Leading us through to his house beyond our host proved his welcome by placing hot baths and even his wardrobe at our disposal. Oh! the luxury of that wallow in the bath, with a dash of liquor ammon. fort. in it. After it, arrayed in our pharmaceutical friend's pyjamas, we emerged to find a table laid, inviting eye and palate. Orchids from the neighbouring jungle, rich-coloured tropical fruit, savoury curry, and tasty chutney covered the damask cloth, and table-servants in neat uniform stood behind each chair. As we were sitting down a message came to our host: some medicine was wanted. "Tell him to go to Chota Kurbia, or try monkey-brand, or come at the proper time," was the Raja-like reply. "I am at khana" (dinner). We fell to, and did gallant execution among the numerous courses of curious concoction and native nomenclature: jungli-murghi, mharsia, bill-salmon, thar, mountain-deer, wild peacock, kala, custard-apples, mango, and, finally, the fresh-pulled papita—that vegetable pepsin which charms the demon of dyspepsia into a myth.

Then our genial host excused himself on the plea of a visit to a neighbouring Maharaja, "who," he explained, "is taking my Terai and Doorze fever-mixture after trying the poor available medical skill of the district." While he was absent we learnt something of his life from two stalwart tea-planters who had dropped in, and who told us he was the sole dispenser of scientific treatment to the natives and the authority on things medical and surgical to the scanty European population. Is it a wonder that his School of Pharmacy medals are regarded by Indian fighting-tribes as tokens of his prowess in the field, and that they measure his curative skill by the length, breadth, and depth of these achievements? Returning from the Maharaja this Himalayan pharmacist gave us proof enow of his mental calibre, his bonhomie, and knowledge of men and affairs. It was a veritable night in Ind. In the morning, early, we surprised our host extracting decayed molars from a solemn Mussulman, then followed him to the stables to see his Yarkandi pony, with mane and tail sweeping the ground. Chota hazri (or little breakfast) over we sorrowfully said "Good-bye" to this courteous and hospitable Knight of the Pestle, who has so well earned the title of "Civil Surgeon of the Kurseong Bazaar."

F.R.G.S.



## Across South Africa.

Some Notes on a Business Trip by our Cape Correspondent.

IF you tell a man you propose staying a few weeks at Lourenço Marques, your best friends who have never been there will look at you seriously and remark, "You must be careful," and, as they bid you good-bye, will leave an impression on your mind that your chances of getting through safe are small. Now, although Delagoa Bay is not exactly the healthiest spot on earth, the fever fiend is grossly exaggerated, and, after all, is generous, simply staying an allotted time each year.

### PORTUGUESE PHARMACIES.

I left my readers at the Pharmacia Central in my last (see *C. & D.*, November 1, 1902), and I will now tell them something about the proprietor, Senhor A. F. Monteiro, and of the other pharmacies in the Portuguese colonial capital. Senhor Monteiro passed his examination in Lisbon in 1881, and some two years later started in Lourenço Marques. From the first he took business seriously, made a bid for what English trade there was to be had, got it, and the name of Monteiro is now pretty well established, not only in Portuguese territory, but far into the Transvaal. While I was conversing with the genial proprietor of the Pharmacia Central, English, French, German, Russian, and other customers came in whose nationality I could not fix; Mr. Monteiro spoke to them all. "How many languages do you speak?" was a question that suggested itself, and I got the reply, "I talk to just anybody that comes along." Leaving Mr. Monteiro, I made my way to the Rua de D. Luiz, to the Pharmacia Veiga. On my right on entering was the word "Laboratorio," on the left were "Consultorio Medico," "Chamadas, a todos a hora." I was glad of that, so I went in to consult the medico, and I found Dr. Ferriera, a Portuguese gentleman such as one often reads about but rarely meets. He spoke English fluently, and is a general favourite amongst our people. Senhor Veiga does not speak English, so I had to do my best in Spanish, and, notwithstanding that we did not get along at a very rapid pace with our conversation, I fully appreciated this gentleman's kindness to me in many respects, and it was with no small amount of regret that I had so soon to bid him adieu.

Senhor Veiga has a staff of assistants most of whom speak English and several other languages—advertisements in the window and inside the shop proper point to the fact that French, Swiss, Austrian, Russian, English, American, and German buyers are welcome. Proceeding along Rua de D. Luiz, I came to the Pharmacia Nobreza & Barbosa, kept by two young and enthusiastic Portuguese. I told the assistant in charge in my best Spanish that I wished to see one of the principals, and I was very soon ushered into his presence. As he was

### READING HIS "C. & D."

apparently with great interest, I launched out in English; but my hearer pronounced me "too much for him." He was just learning English, he explained, and he read the *C. & D.* as well as may be by means of a dictionary. Certainly Senhor Barbosa's English was limited when I had the pleasure of calling upon him; but I have a letter from him at my elbow, written in English but a few weeks later, and, I venture to pass the opinion that an Englishman learning Portuguese would not make near the headway in such a short space of time. "I will speak English next time Senhor calls," were his parting words; and I feel sure he will.

Over the street, but a little lower down, is the Pharmacia Internacional, after looking round which I started to do the town. You commence the day at 7 A.M. and at 11 close for breakfast, opening up again in the afternoon and remaining so till rather late at night. If you are a druggist, you remain open throughout the day; but nobody would think of purchasing during the breakfast-hour unless something urgent. At 9 o'clock in the evening Lourenço Marques begins to enjoy life. The military band plays gaily to you in the *plaza* while you drink your *cerveza*. Everyone and every-

thing seem to be enjoying life. As for me, I am politely drawn on one side by a druggist's assistant, who takes me to the American Kiosk, and explains himself thus: "Tome V. sin cumplido lo que le agrade mas." And I did. There was more wine disposed of, each glass being followed by "Beba V. otro vaso de vino," and of course with "Tengo el honor de beber á la salud de V." Then we march off to see the sights of the town. They are much the same as you get in South American cities, only perhaps a little less polished. Every other place along the street, Rua de D. Luiz, is a bar. My friend the assistant was astounded when I suggested bed at 11 o'clock. "What nonsense!" he said; "why you will miss all the fun." Next day I called upon the British Consul, and thereafter the American, the latter being well versed in trade matters pertaining to the territory in which he resides, and not against giving good Britishers a tip now and again, as many can testify. British and German merchants practically handle all

### THE BUSINESS IN DELAGOA BAY,

and it follows that their commercial status is satisfactory. Care should, however, be exercised in shipping to mushroom firms, for which the port is noted. The druggists and doctors are all Portuguese, as foreign diplomas are not accepted by the Portuguese Government. Courtesy and consideration I received on every hand, and they are especially kind to strange druggists within their gates. I cannot say whether there is any controversy between druggists there about "cutting," or doctors advertising; but I read in the local paper *O Futuro* an advertisement occupying 6 inches single column. It was a long letter by a person who arrived in a German steamer "All run down," and stated that Dr. — pulled him through. He concluded his advertisement, which was in English, with the words, "All honour to Portuguese science." It is customary in Dutch circles at the Cape, when notifying a death in the newspaper, to thank the doctor profusely for his unremitting attention. I think the Portuguese idea a better one.

### THE TRADE IN NATAL.

The harbour of Delagoa Bay is by far and away the finest in South Africa. At Durban they are making what is going to be the finest—the finest in British South Africa, a Durbanite will tell you—only the process of making takes so long that I fear Lourenço Marques will have put down a few more piles, and East London will have dredged her bar two feet deeper, and thus leave Durban still struggling to have the best harbour. But Natal is making a good show, and the handful of people composing her citizens are to be congratulated on the manner in which they have posed in front of the Empire as the best of their kind, pointing southward the while to the Cape as something beyond speech. In Natal they are always "going to do it," and that policy must sooner or later be played out. Three years ago the Natal Government Railway Department assured me that with the rolling-stock and locomotives they proposed bringing out, the Cape would have to "pas op" (look out). I have no doubt the will was there, but the money must have been missing, or something must have gone wrong, because the railroad administration came very nearly breaking down altogether during the war, and the Department could not keep its word with the military, who had to ask the South to help them out.

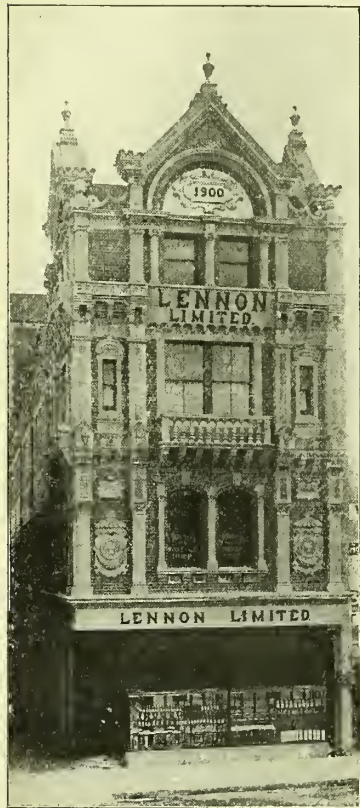
### THE TOWN OF DURBAN

is progressing by leaps and bounds, and some of the buildings are prodigiously fine. If she goes on improving herself at the rate she has been doing during the past few years, she will be a remarkably fine city soon. Even to-day the streets of Durban, and Durban herself for that matter, are not only cleaner, but much smarter than either Cape Town or Port Elizabeth.



New structures seem to be the order of the day, and both the principal wholesale druggists have got into recently completed premises. Messrs. Lennon (Limited) have their headquarters in West Street. The building is not unlike its sister one in Johannesburg, the only difference being

the entrance, which in the Durban case is at the corner, and not in the middle as in President Street of the Golden City. Mr. J. H. Burn (the resident manager) took me under his charge and showed me over the establishment. On the ground floor the pharmacy and photographic departments are located, lighted by electric light, which shows up the steel ceiling at night to advantage; while the fittings are of mahogany. At the back the manager and the general office staff are to be found; and further back still are the shipping and forwarding departments. The first floor is devoted to patents and sundries, and it is here that the accountant has a quiet corner to himself, away from the noise and bustle of the ordinary office force. At the far end are the "wets," and, still further back, divided off from the floor proper, is the packing-room. The



LENNON'S NATAL HEADQUARTERS.

second floor is used for storing goods in original packages, and, although it is customary for Messrs. Lennon (Limited) not to import too heavily of any particular line, but to be

to go out direct in original cases. On the third floor heavy chemicals and rough goods are carried up by means of the elevator, where they remain to be drawn upon as requirements dictate.

A few doors up the street from Lennons' I found the establishment of Messrs. Stranack & Williams, and again, a little higher up, but on the opposite side, the pharmacy of Messrs. Reed & Champion, both of which have figured in the *C. & D.* Retracing my steps, I called in to see Mr. H. J. Brereton, and, while waiting to be taken into that gentleman's private sanctum, took a look round the pharmacy. I notice that the soda-fountain has been displaced by a counter which is used almost solely for photographic goods, and that a very wide range of everything that goes to indicate high-grade pharmacy is to be had. On the ground-floor in the main building the general offices are located, together with



BRERETON'S PHARMACY IN DURBAN



INTERIOR OF ELGIE'S PHARMACY.



INTERIOR OF BRERETON'S PHARMACY.

fed regularly from their London house, there were stacks of well-known English and American patents ready to go down to the next floor to be opened up and sold by the dozen, or

the principals' private offices, doctor's offices, &c., not forgetting the sale-room and private telephone-exchange. Proceeding still further to the rear, and into another build-



ing, is the glass-store, Kafir sleeping-rooms; and heavy chemicals, ether, and such goods are stored. Going up the hydraulic elevator to the first floor, we find merchandise just as it is landed from the different markets of the world, ready to be sent to its proper department, there to be split up and sold in the usual way or to go

"Cabbage Garden," for Mr. Elgie has a knowledge of subjects pertaining to Natal and its trade that one would hardly expect the average druggist to have.

Across the Municipal Gardens in West Street is a drug-store owned by Mr. C. E. Forth. I had heard that a new pharmacy was in course of being fitted in the Musgrave Road on the Berea, and as Mr. Forth is responsible for its appearance, I got that gentleman to snatch a half-hour from business for the purpose of showing me his latest. Just what the new pharmacy is like I will leave my readers to judge from the picture. The fittings are of Messrs. Evans, Sons, Lescher & Webb's manufacture, and Mr. Forth expressed himself as being highly pleased with them in every way.

Although belated, I send you a photograph of the interior of Mr. Gasson's pharmacy, which I described in my last article. I think all these pictures should show home readers of the *C. & D.* that colonial pharmacies are not a whit behind those you have in the Old Country.



THE MUSGRAVE PHARMACY, DURBAN.

out in its original state. The second floor has space-measurement of 1,400 square feet, and is used at one end for "wets" and the other for "drys," the latter being contained in wooden bins running on rollers where such container is possible. At right-angles is located a room specially set on one side for patents which contains over 1,000 square feet, and the shelving, which goes right up to the ceiling, is so arranged, and space so much taken advantage of, that I was not a little astonished when, in reply to a question, I was told the value of the stock. The third floor is a Bond, used for storing merchandise to be removed "overberg" (literally, over the mountains—across the frontier). Natal firms have a Bond of their own as a natural thing, while at the Cape I only know of one firm that owns its own Bond adjacent to business premises. On the fourth floor I found the contractor still busy, and, rather than risk getting in the way of an Irish carpenter and his staff of black labourers, I requisitioned the services of the elevator, got in a 'ricksha, and said, "Chetja." The firm are building a new general warehouse in Queen Street, and I went with Mr. Brereton to see it. Foundations have been put in to carry three storeys. At the time of writing a roof has been placed over the first one extending to 4,000 square feet of space, and it will stay there till pressure of business demands 12,000. Returning to the West Street establishment we find tea waiting for us. This is a splendid institution. Go round to Lennons' during the afternoon, and before you leave tea will be offered you. Look in and see Mr. Brereton on business at 4 o'clock, and surely your conversation will be conducted over a cup of tea. Everybody drinks tea; everybody is expected to. After tea I went over to Gardner Street to have a chat with Mr. S. K. Elgie. As usual, he is ever ready to improve one's insight, out-sight, and round-about sight, where his adopted country is concerned, and any man associated with the drug-trade who does not make sure of a talk with Mr. Elgie misses something; especially if he happens to take an interest in matters pharmaceutical in the

light of day. When you enter you find the proprietor seated on his stool. He bows to you courteously, but makes no attempt to rise. This is only his way, and you must not mind it. After a time he gets up and asks the nature of your business. The Malay druggist's stock consists largely

## The Malay Druggist.

A Bit of South African Life.

DON'T go inside if you are at all in a hurry; but if time is of no immediate consequence you may venture to enter. Be careful as you go down the few steps leading into the shop, or you may strike your head against the cross-beam. The establishment is situated in the basement because the rent is lower and the premises are more open to the



MR. GASSON'S PHARMACY IN KIMBERLEY.

of herbal remedies. Besides these he now keeps a fair assortment of the more prominent "patents." His principal customers are his own countrymen and Kaffirs, though a fair number of Europeans also deal with him. He sells at ridiculously low prices, and this counteracts the natural drawbacks to success with which he has to contend. Every evening, as the sun is setting, the priests



come on to the square roofs of the temples and summon the Faithful to prayers. Then the "Muezzin" rings out its warning note. When this occurs the druggist pushes anyone who may be unfortunate enough to be in the shop at the time outside, makes fast the door, and prostrates himself in prayer. When he has got through with his devotions he re-opens the door. This praiseworthy attempt at following in the footsteps of his ancestors causes trouble at times, as strangers invariably object to such summary treatment. There are a considerable number of fast and feast days in the Malay calendar. On these days nobody works. If you visit the shop then you will find it closed, and a notice posted up stating that the Feast of Ramazan or some other high-sounding name is in progress. Below, in bold lettering, is the polite invitation, "Come to-morrow." But with all these drawbacks to contend with the Malay druggist is going ahead. One valuable asset which helps him materially in his dealings with the Kaffirs is his look of preternatural gravity. The natives believe that a man who looks so solemn must be wise. When a Kaffir comes into the shop and states that he is suffering from some simple ailment, and asks for a remedy, the druggist invariably asks him one question, "How much money have you got?" The Kaffir always put this down to the lowest amount he dare, but no matter how small the sum to be disbursed the druggist will find him a remedy of that value. After the native has answered this question the proprietor points to the door, and the customer goes outside and sits on the steps until the article is ready for him. Europeans, of course, are not requested to "wait on the stoep." On a Saturday afternoon the steps and entrance to the shop are thronged with natives awaiting their turn to interview the proprietor. A great many of the herbal remedies sold in these establishments are old Colonial-Dutch remedies, and the druggist numbers amongst his clients many of the Cape Dutch, who are so much in evidence in the outskirts of the capital. At present Malay druggists have their places of business in the back parts of the town, and so far the law has had little terror for them.

### Cape Aloes.

Professor A. Tschirch, Ph.D., of Bern, tells how it is made.

WE are indebted to Professor Tschirch for a series of photographs which he recently received from Dr.



FIG. 1.—ALOE FEROX, Miller.

Marloth, of Cape Town, illustrating the preparation of Cape aloes. Professor Tschirch has already published several

papers on this subject, and in the last he says he has determined, from inquiries in South Africa, that Cape aloes is either exclusively, or, at any rate, for the greater part, obtained from *Aloe ferox*, Miller (fig. 1). Further inquiries on the spot have confirmed this determination. The photographs were taken in the village where the greater part



FIG. 2.—CUTTING OFF THE ALOE-LEAVES.

of the extraction of the aloes is carried on, and they show the whole process quite clearly. Dr. Marloth states that *Aloe ferox*, Miller, is exclusively used at Mossel Bay for the aloes exported from that place. This species is found in the whole of the south and south-east of the Cape district, and often forms thick clumps. It is frequently used as hedges for fields and to separate different owners' lands. The trunk reaches a height of 2 to 3 metres, and is usually thickly covered with the dried old leaves. In May or June the forked candelabra-shaped bloom grows from the top of the leaves. The edges of the leaves are covered with sharp spikes, and the upper and under sides as well. This character is not, however, universal, and is no doubt the reason the notion has become common that there are more species than *A. ferox* which yield the Cape aloes. Undoubtedly plants of true *A. ferox*, Miller, have not spiked leaves, yet yield good aloes. There are other kinds of aloes in the same districts which are not used for the

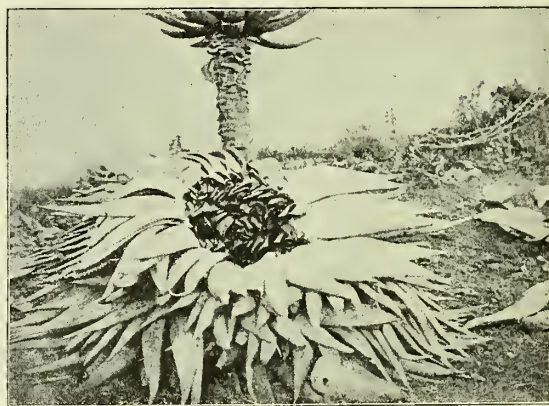


FIG. 3.—STACK OF ALOE-LEAVES DRAINING INTO GOATSKIN.

production of the drug, because the juice is so thin as to give a poor and unprofitable yield of aloes. It has also to be noted that the unspiked leaves are useful on account of the fact that they stack well. Those which have not a large number of thorns are not so convenient to stack, as they slip away from one another. For this reason (at any rate, in the Mossel Bay district) only *Aloe ferox*, Miller, with spiked leaves, is used.





FIG. 4.—POURING THE ALOE-JUICE FROM THE GOATSKIN INTO A KEROSENE-TIN.



FIG. 5.—EVAPORATING ALOE-JUICE OVER AN OPEN FIRE.

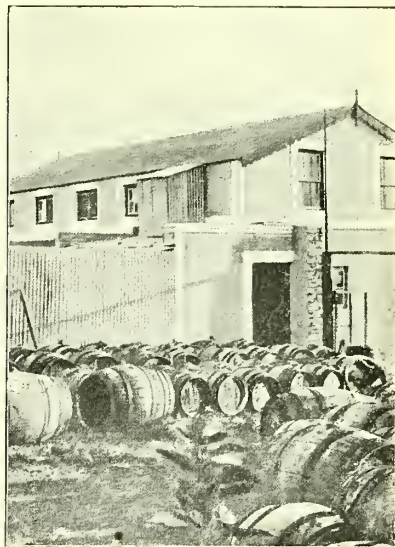


FIG. 6.—"CROWN" ALOES FACTORY.

The extraction of the juice is carried on according to the old primitive method. A hole is dug in the ground and lined with a goatskin or horseskin, and the leaves which are cut off (fig. 2) are put into it, cut-end downwards, to form a stack about a metre high (fig. 3). After a few hours the leaves are thrown aside, and the juice is poured from the skin into a suitable container—usually an empty can (fig. 4). In the evening the juice is boiled over an open fire, in iron pots (fig. 5). In this way the drug obtains its dark, glassy quality. Drying over an open fire is very troublesome work. The juice has to be stirred continuously in order to prevent the aloes charring, and the fumes get into the eyes of the workmen. If the juice is not sufficiently boiled the aloes "runs."

For this reason many aloe-juice collectors prefer to sell the juice to factors instead of converting it into merchantable aloes themselves. Recently an enterprising manufacturer has considerably improved upon the old method of making Cape aloes. He gets the juice brought to his factory in barrels (fig. 6), and after it undergoes a slight fermentation it is dried in the sun in flat wooden troughs. It is this kind which comes into trade as "Crown" aloes. When it first came into the market it was called "Uganda aloes." There certainly appears to be a future for this new preparation; Professor Tschirch says that whilst it has a different appearance from Cape aloes, it is decidedly better, and he suggests that those Pharmacopœias which recognise Cape aloes should include a description of the "Crown" brand.

**ANTISEPTIC MOUTH-WASH FOR INFANTS.**—Dr. J. H. Mackee states that in the treatment of infantile diarrhoea a good antiseptic mouth-wash should always be used before feeding, especially when there is vomiting. One of the following formulas is recommended for the purpose:—

(1)				
Peppermint oil	...	...	...	30 minims
Clove oil	...	...	...	15 minims
Gaultheria oil	...	...	...	15 minims
Glycerin	...	...	...	$\frac{1}{2}$ oz.
Distilled water to make	...	...	...	3 fl. oz.
(2)				
Boric acid	...	...	...	30 gr.
Hydrogen peroxide	...	...	...	1 oz.
Glycerin	...	...	...	$\frac{1}{2}$ oz.
Rose-water to make	...	...	...	3 oz.

## Scientific Progress.

**Apomorphine.**—It has hitherto been held that of the two oxygen atoms of apomorphine one has a hydroxyl function and the other etheral. Pschorr now shows (*Berichte*, xxxv. 4377) that both are in phenol-hydroxyl groups, and that apomorphine has a constitution built upon a phenanthrene nucleus.

**The Formation of Vanillin.**—Lecomte (*Journal de Pharmacie*, 1903, 341) states that vanilla-beans contain two distinct ferments, one of which brings about hydration, and the other oxidation. Vanillin is probably formed as follows: The hydrolysing ferment decomposes the nascent coniferine into coniferyl alcohol and glucose. The coniferyl alcohol is then transformed into vanillin by the action of the oxydase present.

**The Apomorphine Reaction** of the German Pharmacopœia is improved upon (*Phar. Cent.*, 1903, 233) by adding to the solution of morphine hydrochloride (under test for apomorphine) one drop of potassium-carbonate solution, and following it with one drop of 5-per cent. potassium-bichromate solution. The mixture is then shaken with a little chloroform, and if apomorphine is present the chloroform is coloured green. The reaction is shown by as little as 0.05 mgrm. in 5 c.c. of morphine solution.

**Isolation of Aldehydes and Ketones.**—Neuberg and Niemann (*Berichte*, xxxv. 2049) give the following new method for the separation of aldehydes and ketones from mixtures such as essential oils. These bodies combine in alcoholic solution on the water-bath, with thiosemicarbazide to give thiosemicarbazones. These compounds are very soluble in alcohol, and are, therefore, easily separated from excess of the reagent. They then form precipitates with metallic salts, from which the metal is removed by means of sulphuretted hydrogen or mineral acids, and the aldehyde or ketone recovered in the usual manner.

**The Sesquiterpenes.**—A lengthy and important communication on the chemistry of the sesquiterpenes and sesquiterpene alcohols by Gadamer and Amenomiya appears in the current issue of *Archiv der Pharmazie* (1903, 22). The chief results can only be very briefly summarised here, as the work covers too much ground for full abstraction. Atractylol,  $C_{15}H_{20}O$ , obtained from the root of *Atractylis ovata*, melts at  $59^{\circ}C$ , and boils at  $290^{\circ}$ – $292^{\circ}C$ . It is optically inactive, and has a refractive index 1.51101. It yields the sesquiterpene atractylene on dehydration. This body has a sp. gr. of 0.9267, and boils at  $133^{\circ}$ – $141^{\circ}C$ . at 15 m.m. pressure. For caryophyllene the following figures are given: Sp. gr., 0.9032; optical rotation  $[\alpha]_D = -8.95^{\circ}$ ; refractive index, 1.50076. Its nitrosate melts at  $152^{\circ}C$ , and its nitrosochloride at  $158^{\circ}C$ . Patchoulene has a sp. gr. of 0.9296, rotation  $-38.1^{\circ}C$ , and refractive index 1.49355. Guaiol or champacol melts at  $91^{\circ}C$ . and is clearly a sesquiterpene alcohol.





## A Season at Strathpeffer.

AN ENGLISH ASSISTANT'S EXPERIENCES.

I HAD passed the April Minor last year, after the usual months of close study, and, after three weeks' rest in the country, felt no great desire to return to town—at least, until the end of the summer. I therefore determined to look round for a *locum* or season engagement. Two lines in the *C. & D. Supplement* brought me a goodly selection, and, after due deliberation, I decided to put in a season (extending from June 1 till the middle of October) at Strathpeffer Spa.

I left St. Pancras by the midday train, and by 11 P.M. was in Edinburgh, where I had to stay till 4.30 next morning, when I resumed the journey northwards, crossing the famous Forth Bridge, and watching the sunlight effects in the early morning and the glorious panorama on the journey to Perth. In the Fair City a hot breakfast was served and much appreciated. We changed there to the Highland Railway, and soon were passing through some of the finest scenery of Perthshire.

Through the Pass of Killiecrankie to Blair Atholl the views are grand, and from there to Kingussie more impressive still—the Grampian Mountains, covered with snow, stretching upwards on each side of the railway. Passing through Aviemore and Culloden, we at length reached Inverness, the capital of the Highlands.

Half an hour later Dingwall, the county town of Ross-shire, was reached. From thence a branch line bore me to Strathpeffer, the journey having taken just twenty-four hours.

### STRATHPEFFER

as a town is unique. The population after the season is over cannot be more than 400. Picture a broad valley with one of its sides studded with nearly 200 villa residences of the most modern type, three churches, several large hotels, a picturesque pump-room and pavilion. Imagine a pine-forest at the back for effective setting, and, beyond, a 3,500-foot mountain looming in the distance. This, the most northern British spa, is famous for its sulphur springs: in fact, one of them, the Cromartie Well, is stronger in  $H_2S$  than the famous old well at Harrogate. Although the waters have been known for their curative properties for considerably over a century it was not until within comparatively recent years that Strathpeffer became the fashionable health-resort it now is. The whole town is built upon the estate of the Countess of Cromartie, and is beautifully laid out.

There are but few shops, and some of these are only open during the summer months. There is electric-light installation, a string band plays twice daily at the Pump-room, and a staff piper gives selections hourly. Concerts, dances, and dramatic entertainments there are in plenty. The golf-links are pronounced by experts to be very fine and very difficult. The length of the days in June and July appeared to me abnormal, accustomed as I had been to the South of England, and it was found quite possible to play billiards till after 10 P.M. without artificial light.

The neighbourhood of Strathpeffer abounds in famous views and places of interest, the Falls of Rogie being perhaps the most popular. The lochs of Kinelluan, Garve, Ussie, and Achilty are all within walking distance, and are charming examples of Scottish scenery. In Loch Kinelluan the buck-bean (*Menyanthes trifoliata*)

grows luxuriantly, and on the hills the juniper, whortleberry, and bearberry flourish. Heather abounds, and on the slopes of Little Ben Wyvis the white variety can be found, as also can several varieties of selaginellas. Lycopodium grows on the railway-track, and the woods contain an extraordinary profusion of fungi, many of them being brilliantly coloured.



FALLS OF ROGIE.

### THE SEASON

was by no means in full swing when I arrived; in fact, we were rather slack throughout June, so I had plenty of time to look round. The pharmacy I found to be replete with all the latest drugs and chemicals, and well up to date in sundries. I was pleased to find another assistant there who had arrived some three months previously. The hours of business were from 7.30 A.M. till 8 P.M., but in August considerably later. We were allowed one hour for breakfast, dinner, and tea, although indoor assistants, and after closing-time we were free for the night. Every alternate Sunday one assistant, with the proprietor, took  $1\frac{1}{2}$  hour's duty. This arrangement afforded us ample opportunity for visiting



every place of interest in the neighbourhood—a privilege of which we took full advantage. Towards the end of June there was a great influx of visitors, mostly from London, due, no doubt, to the postponement of the Coronation. The numbers steadily increased, and we worked at considerably higher pressure throughout July and August. The visitors' list contained the names of a great number of well-known society people. The doctors, all of whom I found extremely courteous, were kept very busy, and prescriptions poured in. I am glad to say that the B.P. and its preparations were adhered to in almost every case. A decided slackening ensued towards the end of September. On Coronation Day the "Strathpeffer Gathering" was held—a gathering very like English athletic sports, with variations. There my fellow-assistant and myself watched the closely contested dancing and bagpipe-playing competitions, the sword-dance and the Highland Fling, which we greatly admired, being much in evidence. The piping I am afraid we did not appreciate. A large percentage of the spectators conversed in purest Gaelic.

As previous assistants at the pharmacy had climbed

#### BEN WYVIS,

the mountain of storms, we decided to follow suit, and one Sunday morning saw us starting at 9.30 A.M. for the summit, which was duly reached at 1.30 P.M. The climb presented no great difficulties. The distance to the summit is ten miles, and the height above sea-level 3,429 feet. I managed



THE CAIRN

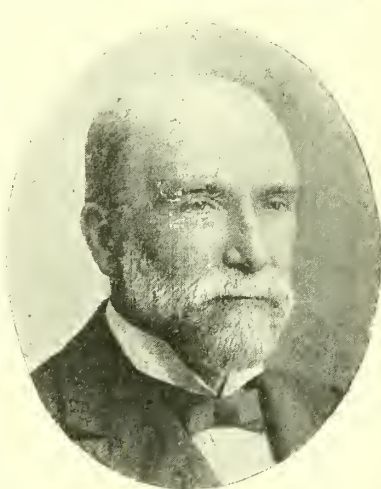
to get several very good panoramic views with my Kodak on the way up, and was fortunate enough to take the summit as the clouds lifted from it. The view from the cairn at the highest point is magnificent, the Firths of Cromartie and Moray appearing quite close, while the Grampian Hills in the south are easily discernible. Six or seven lochs may be counted

and the towns of Dingwall and Inverness are well in view. As clouds threatened to again cover the summit, we started back soon after 3 o'clock, reaching the strath once more at 6.30, having spent a most enjoyable day.

After the county ball a general exodus of visitors took place, and I knew that my stay was drawing to a close; and when at length the day arrived on which I took my departure I felt genuinely sorry to leave Strathpeffer and its people. I had spent a very happy time, and I was feeling very "fit" and well, at the same time being considerably in pocket. On my return journey I took advantage of my tourist's ticket to visit Inverness, Edinburgh, and Glasgow *en route* for London.

## Easton's Syrup.

IT is not generally known that Mr. John McMillan, of Glasgow, originated Easton's syrup. The *Bulletin of Pharmacy*, in the course of an illustrated article on Mr. McMillan's pharmacies, states that Dr. Easton, who was professor of materia medica in Glasgow University from 1855 to 1865, conceived the idea of administering the phosphates of iron, quinine, and strychnine during convalescence from serious diseases, and wrote a pamphlet on the subject. Dr. Easton went about Murdoch Brothers' shop, and was on very friendly terms with Mr. McMillan, at that time the senior assistant. On Mr. McMillan devolved the duty of working out a suitable formula, and the now well-known syrup was the result. This was largely prescribed in Glasgow, and the formula was first published in Aitken's "Practice of Medicine." It was as follows:—



MR. JOHN McMILLAN.

Take of—

Sulphate of iron	...	...	...	5 dr.
Phosphate of soda	...	...	...	6 dr.

Dissolve separately, mix, wash the precipitate.

Sulphate of quinine	...	...	...	192 gr.
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Dissolve with diluted sulphuric acid q.s., precipitate alkalioid with liquor ammonia, and wash.

Dissolve the phosphate of iron and quinine thus obtained with—

Strychnine	...	...	...	6 gr.
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in—

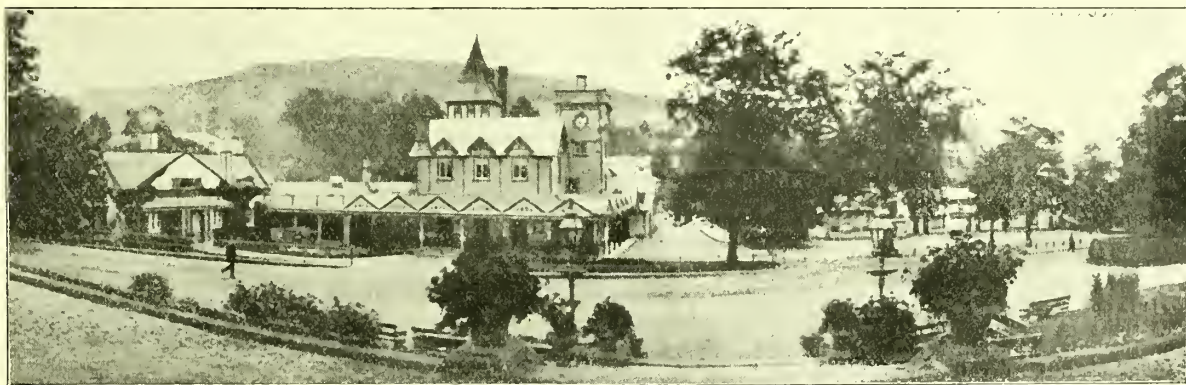
Acid. phosph. dil.	...	...	...	14 oz.
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Add—

Sugar	...	...	...	14 oz.
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and dissolve, secundum artem, without heat.

The formula was subsequently slightly altered by the use of more phosphate of soda, less acid, and more sugar, but the general principle remained unaltered until Mr. W. L. Howie made the suggestion in 1876 that ferrous phosphate might be directly prepared by dissolving iron wire in phosphoric acid—a method which has been followed in recent years, and which is now official in the British Pharmacopœia.



THE PUMP-ROOM



## Festivities.

### NORTH STAFFS ANNUAL DINNER.

The annual meeting of the North Staffs Chemists' Association was held on April 16 at the Grand Hotel, Hanley, Mr. J. Averill, J.P., President (Stafford), in the chair. The Hon. Secretary (Mr. Edmund Jones) read his annual report, which showed that the Association was in a healthy state, whilst the Treasurer's report showed a balance at the bank.

Mr. J. Averill was unanimously re-elected President, Messrs. T. C. Cornwell and W. Oldham were re-elected Vice-Presidents, Mr. Weston Poole was re-appointed Treasurer, Mr. Edmund Jones was re-elected Hon. Secretary, and Mr. T. Bentley was appointed Assistant Hon. Secretary.

At the close of the meeting there was a good gathering at the annual dinner, over which the President presided. The *menu* card for the repast had been drawn up by the Hon. Secretary, and was embellished by the photograph of Mr. Averill, while under each of the toasts were suitable quotations. The company included Messrs. W. Gowen Cross, J.P., W. S. Glyn-Jones, Hugh W. Adams (Coroner for N.W. Division of Staffs), T. C. Cornwell, Vice-President (Hanley), Weston Poole, Treasurer (Newcastle-under-Lyme), Edmund Jones, Hon. Secretary (Hanley), T. Bentley, Assistant Hon. Secretary (Stoke-on-Trent), R. Prince (Longton), C. J. Wain (Newcastle), Messrs. D. H. Oxen, C. P. A. Morrison, and F. L. Spalding (Newcastle), F. W. Wrench (Silverdale), Messrs. T. H. Briggs, T. Charles, A. Fernley, B. Parker, and A. Heath (Burslem), Messrs. S. C. McKee and L. W. Piggin (Tunstall), A. Bennall, A. F. Bottomley, F. C. Burrell, H. H. Bottomley Ernest M. Mellor, and H. R. Green (Hanley), T. H. Jenkins (Stone), H. Percy Jones (Stoke-on-Trent), and S. G. Challinor (Fenton). Among the apologies for absence were letters from the local M.P.s, who promised to watch the Poisons Bill, if one is introduced.

Councillor C. J. Wain submitted "The Pharmaceutical Society," and, referring to the important work that local associations could do, said these bodies were composed of the most level-headed and deep thinking members of the craft. He hoped that the Council of the Pharmaceutical Society would agitate continuously until they got reasonable legislation which would place them on a par with other professions.

Mr. Gowen Cross briefly replied, saying that the Pharmaceutical Society has done much for the profession, and it has educated its men and sent them out into the world with a full equipment of knowledge.

Mr. W. S. Glyn-Jones, in the course of his reply, first dwelt on the importance of the local Associations, and showed the many ways in which they could be very useful to the Pharmaceutical Society. They knew the two matters of importance before the profession—the report of the Committee on Poisons and the Pharmacy Bill. In regard to the first of these he thought there was a danger of chemists and of local associations making a little too much of the matter. The Poisons Committee was undoubtedly the outcome of an agitation of certain people whose interest it was that their proprietary articles containing poisons should have as large and as free a sale as possible. Some of them thought that while it might be in the interest of these particular people to do this, it was not in the interests of the community that people should be able to get poisons without difficulty. (Hear, hear.) If the Government could be shown that there was any real, substantial difficulty in the way of people getting agricultural poisons, that difficulty would have to be met, whatever opinions they, as chemists, had on the matter. He thought, however, that they might rest assured that Parliament would need to be thoroughly satisfied that such difficulty did exist before they tampered with the present excellent restrictions placed on poisons. That being so, whilst it was very necessary that pharmacists as a trade should improve their machinery of organisation, both for this purpose and for the Pharmacy Bill, he did not know that the time had yet come when they could usefully do more than direct the attention of members of Parliament to the Poisons Bill. Locally they could do much. At Bloomsbury Square they wanted to know exactly how to approach every M.P. in the country, and they in the provinces could

help them in this matter as no one else could. The Pharmaceutical Society would not be able to do a certain kind of work unless they were backed up locally by chemists who were the constituents of those M.P.s that they were desirous of approaching in the Lobby and elsewhere.

At this stage in the proceedings a collection was made on behalf of the Benevolent Fund of the Pharmaceutical Society, and the Hon. Secretary announced as a result that 2*l.* 2*s.* had been subscribed.

Mr. Averill's health was next proposed by Mr. D. H. Oxen, and Mr. Averill having replied,

Mr. Gowen Cross submitted "The North Staffs Chemists' Association," and Mr. Cornwell in reply said the critical position created by the suggestion that tradesmen other than chemists should be allowed to sell poisons for agricultural purposes had awakened the profession to a fuller appreciation of the situation in which they stood, and had banded them together in a manner hitherto unknown. The evidence given on their behalf before the Committee seemed to him to have been overweighted in rather an unwarrantable manner. It was evident that they had not been so well prepared as the enemy, but the way in which the profession had rallied since proved that there was nothing like a good opposition to pull men together. (Hear, hear.)

Mr. Weston (Poole) also replied.

Mr. S. C. McKee then proposed "The Visitors," to which

Mr. H. W. Adams (Coroner for North-West Staffs) replied. He said he had often considered that the members of his profession were Jacks-of-all-trades, and in many instances masters of none. There was one case which had come before him officially in regard to the sale of poisons to which he would like to call their attention. Probably they recollected the case to which he referred—it was one in which nicotine was sold from a florist's shop. In all his experience—and he held something like 250 inquests a year—he never came across a case in which an accident had happened in a more simple way, and had the sale of poisons been restricted, as he hoped it would be—(hear, hear)—that most unhappy case could not possibly have arisen.

Other toasts followed.

### NORTHAMPTON DINERS.

The annual dinner of the Northampton and District Chemists' Association was held at the Black Boy Hotel, Northampton, on April 16, Mr. W. D. Mayger (the President) in the chair. Supporting him were the Mayor of Northampton (Alderman T. Purser), Dr. A. C. Clifton, Messrs. W. McKinnell, F. Cowdery (Hon. Secretary), Ashton (Leicester), E. C. Ashford, F. C. Ashford, Gatehouse, J. Flinton Harris, and others. After dinner—an excellent *menu*, well served—and the loyal toast honoured, Dr. Clifton proposed "The Pharmaceutical Society." After reminding the gathering that he was a homœopathic chemist before he qualified as a medical man, he said that the chemists of Britain deserved more recognition as a professional class than they sometimes got. There were combines and trusts and stores everywhere, and the chemists, like other tradesmen, had to meet gigantic competitors. They might as well think of trying to stop the tides as to try to turn aside the course of trade or the march of events. Therefore the chemists must stiffen their backs, sharpen their brains, and meet the competition. The Mayor submitted "The Northampton Chemists' Association." He said he was a firm believer in trade organisations, and so he was glad to see that the Northampton chemists had banded themselves together for their mutual benefit. He had no faith in price-cutting syndicates, and he hoped that the chemists would insist on a fair-living profit from the goods they sold. The chemists of Northampton had the confidence of the inhabitants, and if they asked a fair and reasonable price for their goods they need never fear that they would be wiped out. Mr. F. C. Ashford briefly responded, and Mr. E. C. Ashford toasted "The Visitors." Mr. W. McKinnell, in proposing "The President," after speaking highly of Mr. Mayger, declared that the next generation would see the trade in proprietary articles drift exclusively into the hands of the large stores, while the dispensing of medicines and the making-up of prescriptions would be reserved to the chemist. The President, replying, said that the Association, although it had not yet realised all that he would like it to be, had during the year been instrumental in conferring one great benefit upon the chemists of



Northampton by securing universal closing at 8 o'clock in the evening and 2 o'clock on Thursdays. (Applause.) He was not at all pessimistic as to the future of their trade; notwithstanding all the difficulties he had to contend with, if a chemist gave personal application to his business, if he had a thorough knowledge of the business, and if he possessed common business activities, there was not only a living to be gained, but a little besides. Mr. McKinnell proposed "The health of the Hon. Secretary" (Mr. F. Cowdery). The Secretary, in his reply, announced the unavoidable absence, from sickness or other causes, of various members of the Association. Subsequently, Mr. J. Flinton Harris, on behalf of the assistants, bore testimony to the advantages and benefits gained by the earlier hours of closing, secured through the influence of the Association. The condition of the assistants in Northampton was better than in any other town he knew. During the evening the President gave a capital recitation, Mr. Gatehouse and Mr. Ward sang, and Mr. Charles G. Lewis gave a ventriloquial entertainment. Mr. L. Warner presided at the piano.

## Arrowroot.

By J. R. JACKSON.

THIS semi-medicinal starchy food is obtained from a weedy parallel-veined plant, allied to the ginger and cardamom, and belonging to the same natural order—*Scitamineæ*. The name "arrowroot" is derived from the fact that the fresh juice of the root was employed by the Mexican Indians for external application to prevent poisoning by native arrows. The plant is said to have been first discovered in Dominica, and sent thence to Barbados and Jamaica, where, in the last-named island, it seems to have been cultivated in 1756—at which time it was also stated that "the root washed, pounded fine, and bleached



ARROWROOT *Maranta arundinacea*) AND RHIZOME.

makes a fine flour and starch,' and was sometimes used as food in times of scarcity. In 1750 we find the same starch spoken of in Barbados as an article of food, "far exceeding that of wheat." There seems to be some doubt about the date when arrowroot was first introduced into England, some writers giving it as 1732, and others as 1799. Its preparation for market is simple, though requiring much care. The root, after digging, is washed, the outer skin, which is scale-like, and of a pale buff colour, is scraped off, and the inner fleshy portion grated or pulped. This is next submitted to a system of careful washings in very pure water, free from iron, which upon standing deposits the starch, from which the water is poured off and the starch dried and finely pulverised. St. Vincent arrowroot was at one time the

best quality known in the market, but it has now given place to Bermuda. There seems, however, to be no reason why the culture of the plant and the preparation of arrowroot might not be much more extended. Some interesting facts, indeed, on its growth at Barbados have recently appeared in the *Agricultural News* of the West Indies for December 20, 1902, extracted from the "Colonial Report on Barbados" for 1901-2. It says, foremost among the minor industries, apart from the island sea-fisheries, and what are known as "catch-crops" on sugar-estates, may be placed the cultivation of arrowroot, about 336 acres being now under this cultivation. All but about one acre of this is on land sloping towards the sea, where, notwithstanding that the lands are swept by the sea breezes, it appears to be quite possible to cultivate the plant successfully. The industry at present is entirely in the hands of the peasants, who carry on the cultivation in small plots, the largest being only three acres in extent. In consequence of the smallness of the plots, and because the work is carried on by labourers in their spare moments, it is difficult to arrive at the number of persons engaged in this industry, the work being done by the men early in the morning and during the evening—before commencing and after returning from their usual work in the sugar-plantations. It is estimated, however, that some 700 persons are thus engaged. The greater part of the arrowroot made in Barbados is sold in the country districts, by what are locally known as starch-sellers, who are either the actual producers or persons who buy the arrowroot and retail it. The annual yield is about 2,700 barrels, and the value, at the low price of 9s. per 100 lbs., amounts to about 5,000l.

Most of the imported arrowroot comes from St. Vincent, and is sold in Bridgetown. As there is an import-duty of 2s. 6d. per 100 lbs., to which must be added the cost of freight and the middleman's commission, there is still room for the local expansion of the island-product, apart from the possibility of making it an article of export. Moreover, it is distinctly stated that before exportation can be established there must be considerable improvement in manufacture by the erection of suitable factories, provided with modern appliances. Though *Maranta arundinacea* is the source of true arrowroot, several other plants belonging to different natural orders yield a similar substance, notably the cycadaceous plant *Zamia integrifolia*.

## At the Counter.

"A POOTHER for a gastric stomach," and a written order "1*l.* pamade (permanganate) of pottash," are the latest counter-curiosities from Glasgow.

"BRONACID POWDER FOR CATTARA" was the puzzle which gave pause to an old counterman the other day. The initial "C" of the final word looked more like a "b," and he vainly guessed at the identity of the chemical for a battery-solution. Ultimately after skilful cross-examination, he solved the riddle as "Boracic acid for catarrh."

SCENE: Chemist's shop in Leeds. Child enters.

Child: "I want three-penn'orth of pneumonia."

Chemist: "What? What's it for?"

Child: "Mother's going to a St. Patrick's Day ball."

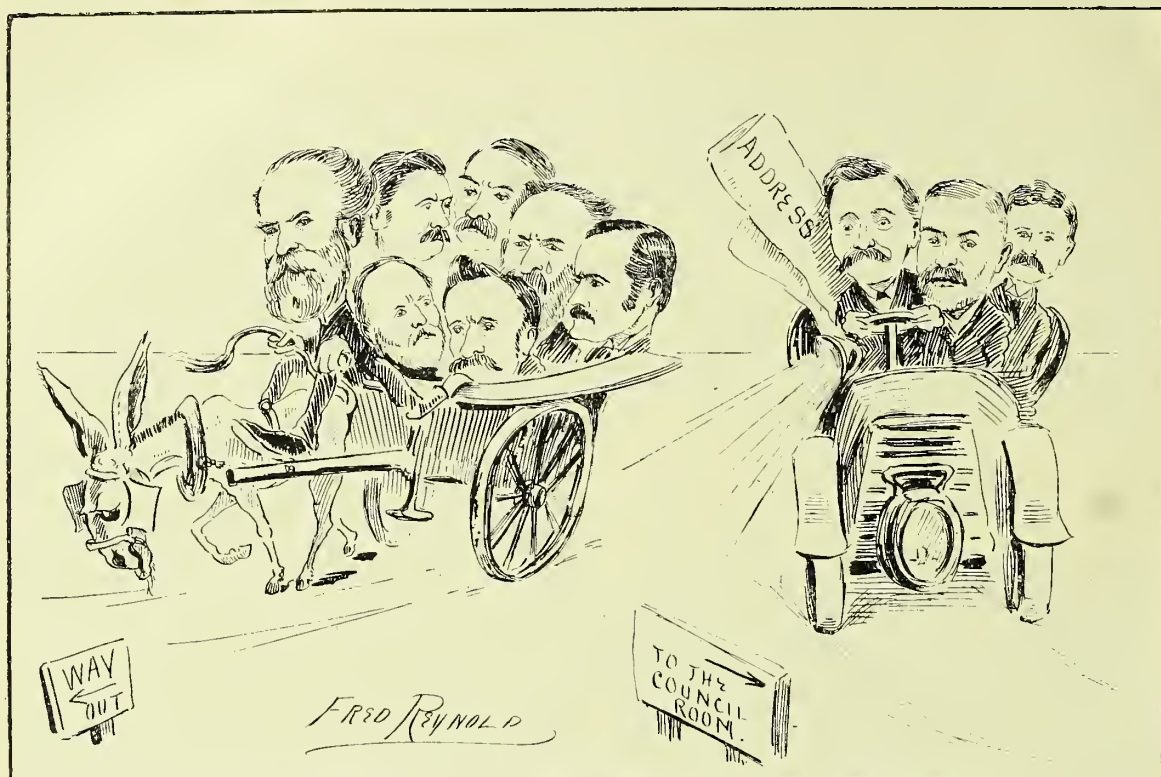
Chemist: "She'll likely get pneumonia if she doesn't take care. What's she going to do with it?"

Child: "She wants it to scent herself."

Chemist: "Oh, oh! New Mown Hay; I see."

COUNTER-IRRITATION.—Lady of mature age and mellow charms: "A box of Katerfelto's bamboozlum ointment, please." Chemist (who has never heard of it before, suavely): "Very sorry that I am quite out of it, ma'am." Lady (in aggrieved tone): "But the advertisement says that it is kept by all reputable (with emphasis) chemists." Chemist (goaded to flippancy): "Then I must be disreputable—eh! Ha! ha! only a little joke you know, merely a playful—" But the outraged dame or damsel had flounced out, perchance to seek the more sympathetic store. And the chemist returned sadly to muse over the bad debts in his ledger for patents at net prices.





### The Council Race.

THE picture, we understand, embodies a bad dream. In the donkey-cart are the retiring seven councillors. The motor is controlled by Mr. Currie, beside whom sits Mr. Paterson, and on the back seat Mr. Walshaw. Behind the address sits Mr. Campkin.

### Formaldehyde Soap.

THE following recipes for soap-solution containing formic aldehyde are contributed by Mr. M. I. Wilbert to the *American Journal of Pharmacy*:-

Castor oil	...	...	...	15 oz.
Potassium hydrate	...	...	...	3 oz.
Distilled water	...	...	...	5 oz.
Alcohol	...	...	...	3 oz.
Formic-aldehyde solution (40 per cent.)	...	...	...	14 oz.

Dissolve the potassium hydrate in the water. Add the alcohol to the oil in a suitable bottle. To this mixture gradually add the potassium-hydrate solution, shaking occasionally; allow the solution to stand until clear, and then add the formic aldehyde.

This makes a light-yellow solution, the objectionable feature of which is the persistent odour of castor oil. A better formula, and one containing a higher percentage of formic aldehyde, is made as follows:-

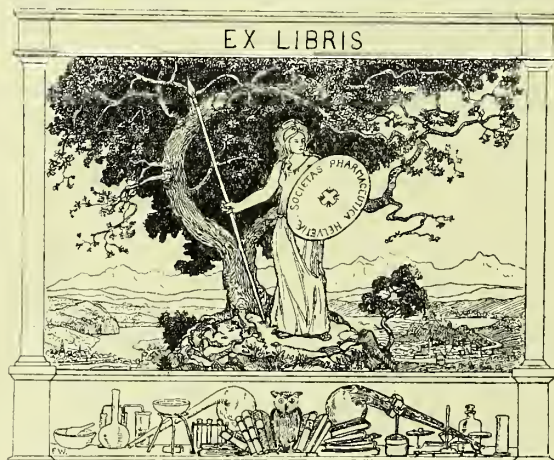
Oleic acid	...	...	...	22 oz.
Alcohol	...	...	...	12 oz.
Potassium hydrate	...	...	...	4 oz.
Distilled water	...	...	...	12 oz.
Formic-aldehyde solution (40 per cent.)	...	...	...	50 oz.

To the oleic acid in a suitable bottle add the alcohol. Dissolve the potassium hydrate in the water and add gradually to the mixture of oleic acid and alcohol, shaking the mixture occasionally. Allow the mixture to stand for from twelve to twenty-four hours, then add the formic-aldehyde solution.

A clear sherry-coloured liquid results. Mr. Wilbert calls the resulting liquid "sapoform." These soaps are when antiseptic, disinfectant and bactericidal applications are indicated for washing. A 2- or 3-per-cent. solution is useful in the night-sweats of phthisis, and in cases of excessive perspiration of the feet.

### Book-plates.

THERE must be in pharmaceutical libraries throughout the world, public and private, many a quaint book-plate. We have several in hand which we propose to reproduce as



space permits, and begin with a pretty one used by the Pharmaceutical Society of Switzerland.

We shall be glad to receive from any of our readers, on loan, copies of book-plates (old or new) which are of pharmaceutical interest.

HERMOPHENYL is phenol-disulphonate of sodium and mercury. It contains 40 per cent. of mercury, and is used as a bactericide and antiseptic in 1-per-mille solution.



## Observations and Reflections.

BY XRAYSER.

### The "Daily Mail's" Attacks

on the trustworthiness of chemists would have had no significance if it had not been for the infamously inaccurate story of the dispensing investigation in a large provincial town by which these attacks were prefaced. It was nearly thirty years ago that the Sheffield public analyst tested twenty mixtures dispensed in that town by chemists from prescriptions. The coincidence of the twenty prescriptions and the large provincial town leaves no doubt that this was the occasion alluded to by the *Daily Mail*; at all events, no other case on record in *C. & D.* annals fits these descriptions. But the discrepancy in the conclusion is enormous, and can scarcely have been the result of mere accident. Mr. Allen reported that three of the twenty mixtures were inaccurately compounded. That was bad enough, and it was so recognised at the time. But the statement was not half "startling" enough for the *Daily Mail* writer. Up-to-date journalism must be hot and strong. So for three out of twenty read eighteen out of twenty, and you get a fair start. That leaves the insinuation that 90 per cent. of chemists are cheats, and on that foundation you can build what structure you like.

### The Other Allegations

made in the articles are the same old rubbish with which we are now familiar. It is curious if such attacks suggested the letter signed "Confidence and Conciliation." The natural comment on that exhortation is *Que Messieurs les assassins commencent la conciliation*. The same comment applies to "Confidence's" practical suggestion. He wants a great and representative meeting of chemists to come together (not to be organised by the P.A.T.A.), and this assembly is to pass unanimously a repentant resolution pledging the trade to commit no more substitution if the good proprietors will forgive us and in future allow a profit of 20 per cent. on the sale of their blessed concoctions. Had we not better at the same time consent to disgorge the profits we have so far made on the sale of our own products? How the meeting is to be convened, how it is to commit absent chemists, and how the policy of non-substitution is to be enforced, are details which "Confidence" leaves to smaller minds. The notion is chimerical, but in any case it is for "Messieurs les assassins" to make the first proposa s.

### Dispensing has been Tested

several times since Mr. Allen's experiments in 1875. Early in 1876 Mr. William Thomson, of Manchester, sent out 176 prescriptions to chemists in Manchester and neighbourhood, Scotland, London, and other towns. Mr. Thomson's report of his results looked worse than it really was, because every deviation from absolute accuracy was noted. The medicines prescribed included iodide of potassium, sulphate of zinc, sulphate of quinine, nitrate of silver, and citrate of iron and quinine. Making fair allowance for slight moisture and the like, it appeared that at least 115 of the preparations supplied were correctly dispensed, and that not more than half a dozen were disgracefully inaccurate. This and Mr. Allen's investigation were made, it should be remembered, at a time when the majority of the persons who described themselves as chemists had themselves chosen that appellation and had given no evidence of competence. The most important inquiry of this kind was made by Dr. Otto Hehner and Dr.

Seaton (Medical Officer of Health for Chelsea) in 1886. Fifty prescriptions of varying character were distributed chiefly among the chemists of Chelsea, but a few were sent to well-known firms in the City and West-end and to certain co-operative stores. Messrs. Hehner and Seaton defined limits somewhat outside of mathematical accuracy, and they found that seventeen samples out of the fifty did not come within these. Out of thirty prescriptions made up at chemists and druggists' shops "of all kinds," two were seriously in error. At co-operative stores fourteen samples were taken and three were seriously in error. Four drug-companies were tested, and three of these came within the serious faulty class; while one prescription out of two dispensed at doctors' shops showed "a very gross error." In November, 1886, Mr. Alfred W. Stokes, public analyst for Paddington, reported that he had tested medicines made up from prescriptions by twenty-two chemists and had discovered "no material inaccuracy" in any instance. I think it would be a right thing if the Medical and Pharmaceutical Councils were to organise occasional and thorough investigations into the accuracy of the dispensing throughout the country.

### The Evolution of Chemical Industry

is brilliantly studied with inside knowledge by M. Bauet-Rivet in the *Revue des Deux Mondes* for April 15. The evolution, says the writer, is in reality a revolution. Modern chemistry is now largely the adoption of synthetic processes. Fifty years ago, M. Berthelot has said, the official representatives of the science regarded synthesis only as a check on analysis. Now it plays the leading part, and, aided by electricity, it is difficult to limit its potential achievements. In the great chemical industry the Solvay direct process has largely displaced that of Leblanc for the manufacture of soda. But will the Solvay triumph be maintained? This cannot be too confidently asserted in view of the still more direct electric processes which, however, at present involve many difficulties of detail. For two centuries the method of manufacturing sulphuric acid in leaden chambers has remained the same. Winckler has demonstrated the practicability of producing sulphuric anhydride by direct union of sulphur and oxygen, by substituting platinum or ashes of pyrites for nitric acid as the catalytic agent. By electric action the production of peroxide of nitrogen, and thence the manufacture of nitric acid, from the atmosphere has been established by Lovejoy and Bradley; so that the safety of our future supply of wheat, which a few years ago Crookes showed was in jeopardy, is now "perfectly assured."

### Acetylene,

itself a wonderful product of electric action, with vast capabilities of service, will be the substitute for coal-tar when the yield of that residue has ceased through the substitution of this material for gas in heating and lighting. From it the benzenes, the toluenes, the naphthalenes, as well as such substances as alcohol, acetic acid, and oxalic acid, can be produced. By heating acetylene with hydrogen, ethylene is produced; by treating ethylene with concentrated sulphuric acid, sulphovinic acid results; by diluting this with ten volumes of water and distilling, the sulphuric acid is separated and alcohol is obtained. To convert this into a commercial process all that is needed is an electric method of forming carbide of sodium instead of carbide of calcium for the initial step. Then a residuum of valuable soda instead of worthless lime would make the alcohol worth getting. The perfumes, the colours, the medicines of recent years, are similarly triumphs of synthesis, and in commenting on the remarkable success with which German chemists have inaugurated and carried on these industries, M. Rivet makes a striking and original observation. He attributes their laboratory genius and incessant progress in organic chemistry to their "sincere and frank adoption of the atomic theory." While theorists in France and England have been discrediting that hypothesis, actual synthesis in Germany has by hundreds of proofs established it more firmly than ever.



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**Pharmaceutical Apathy.**

WITH this week the winter session of pharmaceutical associations virtually closes, although several of them have some bits of spring cleaning to get through before they



settle down for a quiet summer. The session began a month earlier than usual, thanks to the Federation's resolution on the titles-question, and Dewsbury had the credit of opening the ball on September 8. Since then we have reported 335 meetings, apart from about three score of a festive character. No fewer than sixty-seven associations in town and country have held meetings in the winter of thirty-three weeks now closing, so that the figures give nearly a meeting per month in not fewer than sixty centres, and an average of ten meetings per week for us to report. In the week ending March 14 we reported twenty-two meetings, this constituting a record, we believe. There was no meeting in the last week of the year. Only one association has died, and several have come into existence, notably four in London, and others in Cumberland, Peterborough, and the West Riding (Federation).

In face of such activity as is thus represented, it may seem startling to entitle this article "Pharmaceutical Apathy." The title is suggested by the remarks which fell from Mr. Geo. S. Woolley at the annual meeting of the Manchester Pharmaceutical Association the other week. Mr. Woolley complains that the chemists of Manchester do not support the Association by their presence, do not show the slightest interest in questions vital to their welfare, and leave the brunt of organisation to the office-bearers. In spite of the unusual activity of the winter session we have reason to believe that Mr. Woolley's remarks are applicable to nearly every centre which has shown sign of life by holding meetings. We are not deluded by scores of meetings into thinking that all is well with the ranks of pharmacy in Great Britain. Our calling seems to lack the element of individual action in a common cause, as well as the foresight to avert an approaching evil. The report of the Poisons Committee caused a momentary excitement in association circles, especially in the inner rings of these circles, but it cannot be said that the trade as a whole has realised the significance of the Committee's report, and that its effect is to imperil the principle of the Pharmacy Act to which every man in the calling has had to conform since 1868. An agitation is in progress for the purpose of creating public feeling inimical to pharmaceutical qualification, therefore antagonistic to each registered individual's interests. Yet we venture to say there are scores of retail chemists who have not read even an abstract of the report, and there are not a hundred outside associations who have taken active steps to solicit the support of their customers or members of Parliament for the pharmaceutical side of the question.

There is now a Pharmacy Bill before Parliament. In some respects it is revolutionary. That it deals with the company-question most chemists and druggists are aware, but how many know that that is a small part of the matter, and that the Bill as a whole deals especially with individuals and the manner in which they conduct their businesses? We understand, however, that the Bill is tentative, and that the promoters have put it forward as an educative measure, but those who are opposed to the Bill ignore these circumstances, and have used such means to defeat it that nothing but the energetic action of thousands of individual chemists can neutralise these efforts. We are assured that it will be all right when the time comes. If the Government introduce a Bill to give effect to the Poisons Committee's recommendations, arrangements have been made to compel them to negotiate, and doubtless the trade will awake to its danger then as it did when the last Poisonous-substances Bill was introduced and defeated. But, if we may judge from Mr. Glyn-Jones's cautious remarks at Hanley last week, there is danger of negotiation coming from our side. What we have to give away cannot be ascertained so long as the trade is so apathetic as to be unacquainted with the pro-

posals on our side and the other. Apart from that, there is now definitely before us a suggestion by the pharmaceutical councillor who has been most active in introducing the Pharmacy Bill, which is of first-rate importance to every person on the register of chemists and druggists, Mr. Glyn-Jones is as clever in keeping silence as he is in speaking. His remarks on poison legislation give a new aspect to this question: they open the way to considerations which most retailers, apathetic and non-apathetic, have not dreamt of.

## Water-glass.

WE still receive many inquiries as to "What is water-glass, and how is it used for egg-preserving?" and as this is the season when chemists and druggists may do some profitable business in the article, particulars regarding it are not out of place. Water-glass is either sodium or potassium silicate ( $4\text{SiO}_2 \cdot \text{Na}_2\text{O}$  or  $4\text{SiO}_2 \cdot \text{K}_2\text{O}$ ), the two kinds being distinguished as soda water-glass and potash water-glass. The substance was known to the alchemists as "oil of flints," a fairly expressive name when it is considered that it was usually made from equal parts of calcined flints and salt of tartar. Such a mixture on exposure to a damp atmosphere deliquesces, and partial combination takes place. In Lemery's "Cours de Chymie" (1675) some translations of which are in the Pharmaceutical Society's library, the physical properties of oil of flints are described with considerable accuracy, and its solvent powers noted. Besides the names mentioned, the substance is sometimes called liquor silicium. "Double water-glass" is a mixture of equal parts of soda and potash silicates. The soda water-glass is the form usually met with in commerce, sodium silicate being a little more readily fusible than potash silicate. It is a viscous liquid with a sp. gr. of about 1.3 to 1.7, slightly turbid in appearance, miscible with water, and drying to a hard glass. The method of manufacture is to fuse on the bed of a reverberatory-furnace the following mixture: sodium carbonate 22 or 23 lbs., white sand or powdered flints or quartz (prepared by heating to redness, quenching in water, and grinding) 44 or 45 lbs., charcoal in powder 3 lbs. After fusing the mixture for eight or ten hours, the mass is withdrawn, broken up, and dissolved by prolonged boiling in water. Potash water-glass produces a thinner liquid, but as the price is a little higher the soda water-glass has the advantage. The commercial uses of water-glass are numerous, one of the earliest being the Ransome patent process of preserving stone. The method is to coat the stone with water-glass, and when dry calcium-chloride solution is applied. The calcium silicate forms a very dense film over stone so treated. It will be remembered that the stone of the Houses of Parliament was treated by the Ransome method, and the test of age proves that the exfoliation of the stone has been effectually stopped. In soap-making, sodium silicate confers hardness and durability, especially on cocoanut-oil soaps, the idea of thus solidifying water being due to Gossage, who in 1862 devised a new way of making sodium silicate on the commercial scale. The salt-glazing of earthenware is an example of the use of sodium silicate as a protective agent; the same substance is also used in dyeing and calico-printing, for the preparation of unflammable wood and paper as a medium for fresco-painting, and for mending stone. Some thirty years ago Rabuteau and Papillon pointed out the antiseptic properties of sodium silicate, which they likened to borax in preventing fermentation and putrefaction. The two silicates have been recommended, when diluted, for use as injections in gonorrhoea, and potash silicate as a paint to cover erysipelas. It has, however, been



asserted that the antiseptic properties of water-glass are merely due to free alkali, and not much has been heard of its medical uses of late. The use of potash water-glass as a bandage-stiffener is only mechanical, but it has several advantages over starch and plaster of Paris as a support.

The employment of sodium silicate as an egg-preservative chiefly concerns us at present, and as the process is sure to increase in popularity, chemists should not lose the opportunity of being able to supply the article, with ample directions for its successful use. For ordinary use it is convenient to supply water-glass in 1-lb. lever-top tins, the fluid capacity being about 10 oz. This amount of solution is diluted with sufficient warm water to make a gallon of liquid, into which, when cold, the eggs are put. From 120 to 150 eggs can be immersed in a gallon of liquid. Two points should be particularly noted—(1) the eggs to be preserved must be fresh in the sense of only having been recently laid (not more than a day old), and (2) preserved eggs never have the fine flavour of a fresh egg. But people with blunt tastes may not detect the difference, and the majority of housewives will be content with having good cooking eggs in winter at spring and summer prices. One-pound tins of water-glass sell at 1s. The size of the label, if it is intended to entirely cover the tin, is about 9 by 3 inches, but allowance should be made for trimming in case the depth of the tins varies. The following is the wording of the label which may be arranged in panels or as preferred:—

## Concentrated

### Water-glass or Silicate of Soda

FOR

### Preserving Eggs.

#### FRESH EGGS IN WINTER AT SPRING AND SUMMER PRICES.

#### *Directions.*

Remove the lid from the tin by levering it up with a penny. Select a wooden, earthenware, or galvanised-iron vessel of the capacity of about a gallon and a half, and empty into it the contents of this tin. To the water-glass in the vessel add  $7\frac{1}{2}$  pints of hot water, and mix well together by means of a wooden or other suitable stirrer. Let the solution become quite cold, then place the eggs, which should be perfectly fresh, in the liquid. The above quantity of solution will be sufficient for from 120 to 150 eggs, but care must be taken that about an inch of liquid is left above the eggs. The vessel containing the eggs and solution is next lightly covered to exclude dust, and stored in a cellar or other cool place. If some of the liquid in the preserving-vessel evaporates on keeping, restore it up to the proper level by adding water.

Eggs so preserved will keep for twelve months, and are ready for use as soon as taken out of the solution, the egg merely requiring rinsing with warm water or wiping with a damp cloth. If the eggs are to be boiled, they should be pricked in two or three places before placing in the saucepan to prevent the eggs cracking.

The process is only intended for preserving fresh eggs. If the eggs have been laid some time before placing in the water-glass, the results are not satisfactory.

The solution is quite harmless to the hands or clothes, and possesses antiseptic or preservative properties. A fresh solution is required for each season's supply, as the liquid becomes exhausted in time.

SOLD BY

It is useful to be able to advise customers how to test preserved eggs. Dealers use what is known as the candle-test. For this purpose a piece of black cardboard, with an oval hole rather smaller than an egg, is placed before a

strong light, and the egg placed against the hole between the light and the eye. If any dark spots or shadows are seen, the egg is rejected. The age of an egg is readily told by the way the egg behaves when put in water. A fresh egg remains horizontal; an egg three to five days old inclines to an angle of  $20^\circ$ , the angle increasing until, at about fourteen days, the egg floats, the varying size of the air-space in the egg being the determining factor.

From inquiries we have made we find that the wholesale houses are all ready to supply water-glass in various sized tins and generally with stock labels, and as the cheap-egg season lasts till the end of June, chemists have ample time to turn the hints given in this article to account.

## New South Wales Progress.

THE latest available figures in regard to the trade and commerce of New South Wales are given in Mr. T. A. Coghlan's book (1900-01 edition) on the wealth and progress of that colony. This is the thirteenth issue of the work, and in the thousand odd pages which form the volume those interested in the colony will find much valuable information on almost every industry. Development and progress steadily continue, both the imports and exports showing substantial increases, the value of the goods imported in 1900-01 being 26,928,218%, and of goods exported 27,351,124%. Of the imports 19,492,978% were retained for local consumption, and 7,435,240% were re-exported. The average value of imports per inhabitant is now 19% 12s. 6d., and of exports 19% 8s. 8d. Among the imports were drugs and apothecaries' wares, valued at 205,803%, and oilmen's stores, 93,310%. Drugs, chemicals, &c., were also re-exported to the value of 122,331%. To what extent the trade of New South Wales follows the British flag may be gathered from the fact that the imports from Great Britain and British possessions were 81.42 per cent. of the total imports, being 22,441,000%, and of the exports we absorbed 20,500,000%, or 73 per cent. Our proportion of the exports has been falling steadily since direct trade with continental Europe was established. At one time the United States was the largest foreign market of New South Wales, the value of the exports thereto far exceeding those sent to any other foreign country, but the direct shipments of wool to the European continent have placed it below France and Germany. Drugs and apothecaries' wares to the value of 26,049% were imported from the United States, such imports having shown a steady increase since 1896. German trade has also attained considerable dimensions since direct communication was established between Hamburg and Sydney. Of drugs and chemicals Germany shipped 40,000% worth to New South Wales, against 26,000% in the previous year. Here, again the figures show a steady rise since 1896.

Among the many minerals produced in the colony bismuth interests us most. Eleven tons of the metal was exported during 1900-1, valued at 5,640%, being an increase of 2,285% on the previous year. The bulk of it was raised by the Jinger Mineral Proprietary Company in the Pambula district, 576 tons of ore being treated for 10 tons of metal. Up to the end of 1901 the total value of the metal exported was 63,185%. Platinum was represented by 530 oz. only, compared with 638 oz., and the results were not satisfactory to the miners, many of whom left the Fifield Goldfield, where the metal is found associated with the gold in wash-dirt. As an encouragement in the search for quicksilver ores, the Department of Mines has offered to pay a reward of 500% to the first person or company producing 50,000 lbs. of quicksilver from ores raised in New South Wales, but nobody



has yet earned it, although extensive deposits of a low grade of cinnabar have been found recently.

The consumption of castor oil appears to be diminishing in Australia, the total imports having fallen from 641,000 gals. during 1898 to 474,000 gals. in 1899, while the quantity imported during 1900 was only 346,000 gals. The requirements of New South Wales represent about 200,000 gals., chiefly used as a lubricant, and the decreased imports are attributable to a growing preference for mineral oils. India sends practically the whole of the supply, and, as showing the general falling-off in the consumption, the total export from India to all parts of the world was only 1,254,000 gals. in 1900, as compared with 1,747,000 gals. in 1898. The average wholesale price of the oil in Sydney is about 2s. 8d. per gal. We understand that no attempt has been made to manufacture castor oil locally, as the price of labour and the initial cost of machinery would be too costly. The culture of the olive makes little, if any, progress in New South Wales, although the soil and climate are similar to that of the olive-growing countries which border the Mediterranean. Honey and beeswax continue to be important New South Wales staples, but the figures for the year under review show a shrinkage in output. The total yield for the season ending March, 1901, from 47,394 productive hives was 2,397,698 lbs., or an average of 50.6 lbs. per hive. This is a decrease of 397,000 lbs. on the yield of the previous season, and of 577,000 lbs. on the yield for the year ending March, 1898, when both the highest total production and the highest average were recorded. The quantity of locally produced honey exported amounted to 96,980 lbs., valued at 864d., of which 49,208 lbs. went to Victoria and Tasmania and 41,250 lbs. to the United Kingdom. No figures relating to the exports of beeswax are given, but the production during 1900-01 was 49,337 lbs., against 55,988 lbs. in 1899-1900. The average wholesale price of beeswax varied from 1s. to 1s. 0½d. per lb. in the Sydney market, and when it is considered that the Mining Lane price for good Australian wax is only about 7d. per cwt., or 1s. 3d. per lb., there is little inducement to export. Increased attention is being paid to the production of arrowroot, and although there were only 28 acres under cultivation during 1900-01, the area has doubled since 1897-98. The total value of the yield was returned at 209%, or an average of nearly 7l. 10s. per acre. Excellent results have been obtained at the Wollongbar Experimental Farm, near Lismore, and a mill for the treatment of arrowroot has been erected on the Richmond River. It is anticipated that as a result of the cheaper means of preparing the product, the extent and value of the crops will ultimately be increased. During 1900-01 the net import of arrowroot, chiefly from Queensland, was 176,000 lbs., valued at 1,709%. In regard to eucalyptus oil, Mr. Coghlan points out that Algeria and California are formidable competitors for the supply of the world's requirements. We are not aware, however, that Californian competition has made itself felt in this country—indeed, this oil no longer occurs in the European market. Algeria may be reckoned as a keen competitor of Australia, especially for Globulus oil; but the North African product has been boomed beyond its possibilities, and we expected to get more precise information from a Government statistician. The exports of oil from New South Wales during 1900 (the latest figures available) amounted in value to 2,473d., against 1,103d. in 1899. The lion's share (2,225d.) went to Germany, that country's purchases showing an increase of 1,314d. on the figures for 1899. The United Kingdom received 76d. only, against 15d. in 1899, and New Zealand, the United States, Queensland, Victoria, and Western Australia absorbed the balance. The weight or number of packages exported is not given, so that the

above figures are of little value. The cultivation of flowers for the extraction of perfumes is practically dead in New South Wales, and it is doubtful if ever matters will be advanced beyond the experimental stage. Mr. Coghlan remarks that the State's beautiful native flora is being gradually destroyed, as the coast-slopes and the bush-lands in the neighbourhood of every town are periodically stripped to furnish attractions to local flower-shows and charity-bazaars.

### The Sheep-dip Inquiry.

The Departmental Committee appointed by the President of the Board of Agriculture seems to us about three years behind. It should have preceded the inquiry into the sale and use of poisons for agricultural purposes, and it may be that this has been realised in the proper quarter, so that the new inquiry may afford a convenient way out of a difficulty. There is work to be done in regard to sheep-dips and the acari which produce scab and other skin evils that afflict sheep. We have from time to time reported work of a tentative nature which colonial Governments have instituted, but a thorough inquiry by the home government should give good results, especially as the principal manufacturers of sheep-dips are in this country, and have much information that they could give. We do not suppose that anything further will be done about the Poisons Committee's report until the new committee has done its work: legislation in the meantime would be out of place.

### Suicides with Poison.

According to the daily papers suicides are especially common just now, and some say that poisoning cases are more numerous than usual. The statement is not justified by the facts. We went into the matter one day this week with a newspaper representative who came to ask us what chemists are doing to thwart the aims of would-be self-poisoners. Before he left the office he was convinced by figures that poisoning cases have not been appreciably more numerous this year than they were last year, also that chemists and druggists as a body control the sale of poisons in an effective manner. This he noted is particularly the case in regard to the more potent poisons of the first part of the schedule, in which the regulations are so well carried out by chemists and druggists that fatalities from some of them never occur, and in other cases the majority of the fatalities occur when the poisons are used for industrial purposes.

### Ceylon Papain.

A correspondent in Ceylon asks us to warn those who buy Ceylon papain of the fact that some of the stuff made there is of poor quality. He says:

Papain is the concentrated active principle of *Carica Papaya*. Its preparation (speaking from an experience of twenty years) is complicated, and the pure derivative can only be obtained by treating the exudative material with rectified spirit, evaporation, heating at a regulated temperature, sifting, &c. The variety of the species used, age and sex of tree, and absolute cleanliness of implements are all important factors in determining the pure and unadulterated preparation. At present a crude material, prepared by natives and containing abundant adulteration, is purchased cheaply by local firms, who export it as papain or papaya-juice. The preparation of this stuff is very primitive, and consists only of drying in the sun or over a smoky fire, and of thickening by the addition of starchy matter, as rice congee, bread, flour, arrowroot, biscuits, &c., not to mention unclean receptacles. Still more recently the unscrupulous native has resorted to a dangerous adulterative material—viz., the milk from the wild guttapercha and the wild cactus. It is with reference to the latter that I wish especially to warn purchasers, as it has very irritant properties, acting like a caustic, and its use can only be productive of dangerous or fatal results. Such a case has already occurred. Buyers may therefore note that the granular form should always be obtained, as this allows of any adulteration



being immediately detected, whereas the powdered form disguises all adulteration.

The comparative failure of papain as a therapeutic agent is undoubtedly explained in part by the sophistication to which it has always been subjected.

### Pharmacy in Egypt.

In connection with the campaign instituted by the *Egyptian Gazette* in favour of a pharmacy law for Egypt. "An Old Resident" of Cairo writes to that paper regarding the status of chemists in business who have no diploma. The writer has been well and faithfully served, he says, for over twenty years by a chemist who has no diploma, but has well learned his profession by "rule of thumb," and he suggests that the new regulations should not apply to anyone who can show that he has followed his trade ten years "without complaint." The *Gazette* in an editorial note replies that although no Government assurance, or official statement has been given, the editor is of opinion that an exemption such as indicated will be included in the regulations. Moreover, the *Gazette* points out that some years ago the Government afforded all the un-diplomaed pharmacists the opportunity of passing a qualifying examination. Twenty persons entered for that examination and eight passed. Why was not "An Old Resident's" pharmacist among these? No decision has been arrived at by the Sanitary Department, but there is every reason to suppose that such examination would again be arranged. There should be two certificates granted: one for first-class pharmacists who pass the qualifying examination of the Egyptian Government, and an "assistants' certificate" for all of ten years' experience in a pharmacy who pass a simple theoretical and practical examination.

### Analytical Curiosities.

The *coterie* of chemical analysts which is trying to run a British analytical control is very indignant at the success of pharmacists in securing water-analyses. In a recent issue of the organ issued by this disinterested body two "awful examples" of reports on the examination of samples of drinking-water were published as a warning "to the public against the acceptance of productions such as these." The "reports" were supplied by a correspondent, and it is alleged that the samples were drawn from the same source. No. 1 emanated from the analytical department of a firm of London pharmacists, while No. 2 was supplied by "a country druggist":—

#### "Spring Water" No. 1.

	Parts per 100,000
Total solids ...	44.5
Chlorine ...	3.0
Ammonia ...	0
Nitrites ...	0
Nitrates ...	0.049
Phosphates ...	0
Total hardness ...	22.5

#### "Spring Water" No. 2.

	Parts per 100,000
Chlorine ...	2.57
Free ammonia ...	.001
Albuminoid ammonia ...	.007

*Opinion.*—Good and suitable for drinking-purposes.

*Opinion.*—Cannot recommend for drinking-purposes.

It is not alleged that the figures in either of the reports are inaccurate, although "in view of the circumstances" the analytical scribe "takes leave to doubt their correctness," and he continues to point out that the analyses are inadequate, and the opinions given in neither case justified by the results. We are not told why, but we get a glimpse of the cloven hoof in the next paragraph, which says:

Of course, so long as people, in their ignorance, persist in consulting firms and individuals who dabble in matters which they have no *prima facie* business to touch, there will always be cases of this kind.

Quite so; and that is the only purpose of this "warning to

the public." Furthermore, assuming that the samples are from the same source, "which we take leave to doubt," we feel quite certain that no two of the analytical clique could make independent analyses of the same samples and obtain results more adequate or so near approximation as the examples given.

### Animal Remedies.

In a recent issue of the *Indian Lancet* there appeared a note on some of the medicinal uses to which various insects and out-of-the-way animals are put in Korea. The Koreans are evidently strongly imbued with the homœopathic theory, as may be judged from the fact that they find the "nature of the devilish tranquillising," and that crushed pediculi are good for ulcers, and especially for wounds of the scalp. Woodlice are recommended for menstrual disorders, asthenia, and difficult micturition. They have to be collected on the fifth day of the month and carefully dried. Snails, which should be caught on the eighth day of the month, are valuable for lameness, rectal prolapse (presumably in ointment form), convulsions, and thirst, with a special tendency to sober drunken persons. The *Cimex lectularius* (nicknamed "Asiatic strawberries") are a useful corrective of profane and ill-tempered persons. Mosquitoes, curiously enough, are preventives of malaria and of fits of anger.

### Taxing Artificial Teeth.

The Chancellor of the Exchequer gets many a bit of advice at this season in regard to raising revenue. One of the latest comes from the *Financial News*, which suggests the taxation of false teeth. Our contemporary says:

The middle and wealthy classes have to pay substantial prices to the dentists, and, surely, if a man or woman can give 5s., or 1l. 1s., for a single tooth, he or she could not be inconvenienced by the impost of, say, 1s. per tooth. Taking the population of the United Kingdom at about 40,000,000, and allowing (as a prospectus might say) an average of two artificial teeth per head per annum, the Chancellor would make a haul of 4,000,000l. sterling—equivalent to a reduction of 2½. in the pound on the income-tax. Then there are the renewals, to say nothing of the gold-plated complete sets! And then people who did not like the tax could, of course, bear with their misfortune, or deny themselves one meal in order to save sufficient to pay the extra shilling. A stern penalty would, naturally, have to be exacted from mean individuals, who "syndicated" their teeth, or heads of families who endeavoured to make one set go round the domestic circle.

It has not yet occurred to our contemporary that 1d. on each copy of it would not be grudged, we hope, by the financiers who find it as indispensable as their breakfast; and by judiciously increasing the tax on our contemporary, the Chancellor might be able to wipe out the income-tax altogether—if not the *F. N.*

## Westminster Wisdom.

(From our Parliamentary Representative.)

### ANOTHER PHARMACY BILL.

I hear that a movement is on foot for the introduction, by one of the Nationalist members, of a bill to amend the Irish Pharmacy Acts, chiefly in regard to the question of the formation by unqualified men of limited liability companies. Various other points in the Poison Committee's report will also be dealt with.

### SUGAR-REFINERIES IN BOND.

It appears that under one of the articles of the Brussels Sugar Convention it will be necessary to place sugar-refineries in this country in bond. The cost of supervising the refineries when bonded will be borne by the Crown as in the case of ordinary bonded warehouses. There will be, however, various compensatory additions to the revenue.



## Winter Session.

### Chemical Society.

A MEETING was held on Wednesday afternoon, April 22, Professor W. A. Tilden, F.R.S. (President), in the chair. The first paper read was by Messrs. DONNAN and DE ROSSIGNOL on

#### THE INTERACTION OF POTASSIUM FERRICYANIDE AND IODIDE.

This work was the outcome of an attempt to devise a method for the indirect estimation of potassium ferri-cyanide. The products of the reaction are potassium ferrocyanide and a periodide of the formula  $KI_3$ . To explain the formation of the latter the authors find it necessary to assume that the complex ferricyanion undergoes further ionisation into ferrous and cyanogen ions, which react in a complex manner with the ions produced by the dissociation of potassium iodide. This explanation is in harmony with the results obtained from measurements of the velocity with which the reaction proceeds, but, as Sir WILLIAM RAMSAY and the PRESIDENT pointed out in the discussion which ensued, chemists would have some difficulty in believing that the iron in potassium ferrocyanide could react as such with reagents, and this the authors' explanation necessitates. Mr. G. BARGER then described a very ingenious method for the

#### DETERMINATION OF MOLECULAR WEIGHTS.

This depends upon the principle that, when two liquids of different vapour tensions are enclosed in the same space, vapour slowly distils from the liquid of higher vapour tension and condenses on the other until equilibrium is reached. If, therefore, measured drops of two different liquids are placed in a sealed capillary tube left at rest and measured from time to time, it is possible to ascertain the point at which equilibrium is reached; and at this point, if the liquids employed are solutions of two different substances in the same solvent, the drops of liquid will be equimolecular, and, consequently, if the molecular concentration of one of them is known the other can be calculated. The method has the advantage that it requires mere traces of substance, but it is tedious to carry out, and will no doubt require great improvement before it can be made a general laboratory process. The third and last paper was a contribution from Professor HARTLEY on

#### THE SPECTRUM OF PILOCARPINE NITRATE,

in which the author pointed out that the spectra ascribed to pilocarpine and isopilocarpine by Professor Dobbie in Dr. Jowett's recent paper on these alkaloids, are really the spectra of nitric acid slightly modified by the presence of these alkaloids. Professor DOBBIE, in reply, showed that Professor Hartley's criticism did not affect the point that he and Dr. Jowett were attempting to prove—viz., that pilocarpine and isopilocarpine are not structurally different, since it was clear that the spectra given by the nitrates of these two alkaloids were practically identical; and even supposing that they were merely spectra of nitric acid, Professor Hartley must admit that they were modified to the same extent by the two alkaloids.

During the afternoon a ballot for the election of Fellows was held, when Mr. A. Fletcher, of Messrs. Oppenheimer's laboratory, Mr. W. Kirkby, of Manchester, Messrs. A. E. Pitt and H. E. Stevenson, of Messrs. Bush's laboratory, were elected.

### Society of Arts.

At the meeting of the Society on April 22, Mr. Walter F. Reid, F.I.C., F.C.S., who is a well-known bee-master and first-class expert of the Bee-keepers' Association, read a paper on

#### MODERN BEE-KEEPING.

The chair was occupied by Mr. E. D. Till, and there was a large and interested audience. Mr. REID said bee-keeping is one of the oldest industries connected with agriculture. In the Bible beeswax and honey are mentioned more than

seventy times, and the Hebrew word Deborah (from which the more modern Dora and Dorothea are derived) was a sort of pet name for the bee. In Egypt in ancient times the bee was a symbol of royalty, and the so-called fleur-de-llys on many royal emblems is really the figure of a bee head downwards. Perhaps the earliest records of the bee are given in the records of the voyage of Pithias, a Phœnician, who sailed into the Amber Sea (Baltic) and found there many savages who were very fond of getting drunk on mead or fermented honey. In the ancient sagas, as is well known, the most glorious future for the dead warrior is one where he can quaff unlimited supplies of mead. He recalled the episode of Xenophon and the army that were poisoned by honey in the Caucasus, and, curiously enough, the correctness of the Xenophon record was corroborated by a Russian gentleman whom he (Mr. Reid) met recently. This gentleman came from the identical district in the Caucasus, and he stated that the honey got there is poisonous, the bees gathering it principally from the *Azalea pontica*. Honey was the only substance known to the Ancients capable of replacing our sugar, and for a long time it was the only substance available for preserving organic materials. The body of Alexander the Great was preserved in honey, and it is recorded that Herod I. kept the body of Mariamne, his wife, for seven years in honey. Wax was of the greatest importance when candles and lamps were the sole illumination, and in the Middle Ages enormous quantities were used in the services of the Church of Rome. In those times bee-keepers had special rights and privileges, and formed powerful guilds, especially on the Continent. The introduction of sugar and oils has brought about decadence in bee-keeping, a thing which Mr. Reid deplored. He blamed bee-keepers themselves for using archaic apiaries and appliances, and commended the British Bee-keepers' Association and the County Councils for encouraging an industry which could well be made a profitable one. Mr. Reid then went on to describe in detail (illustrating by limelight and by actual models) the evolution of the perfected beehive. The man who has contributed most, he said, to our knowledge of bees was Huber, the blind naturalist of Geneva. Huber was the first to make a hive with frames. These frames swung on hinges, but were not quite practicable, and it was not till 1841 that Prokopovitch (a Russian) invented the hive with movable frames, and he was also the first to affix a piece of comb to the wood to induce the bees to attach their combs to the frame. The combs worked by the bees are not always straight, so it occurred to Mehring, a Bavarian carpenter, to emboss a sheet of wax with a pattern representing the base of the cells. A frame filled with such a sheet ensures a straight comb, for the bees adopt this work of human hands as their own, and finish off the cells sketched out for them. Hitherto the comb had to be crushed in order to extract the honey, thus causing considerable loss, but in 1865 it occurred to an Austrian officer, Major von Hruschka, to fasten the comb in a frame, and after capping the cells, revolve the frame rapidly by means of a string, the honey thus flying out of the cells and leaving the comb uninjured, and ready for refilling by the bees. This method, the principle of centrifugal force, has been adopted and perfected in the honey-extractors of to-day. Mr. Reid described and showed the working of the various pieces of apparatus employed in honey-extraction. Amongst the minor devices that have contributed to the convenience and profit of bee-keeping in recent time, Mr. Reid mentioned a "queen-excluder," invented by himself. These are used to exclude queens and drones from the honey-chambers, and instead of the usual zinc grating (which absorbs heat and chills the brood-nest) Mr. Reid uses celluloid. This, being a non-conductor of heat, is more satisfactory, and transparent sheets of celluloid he has also found useful in the apiary for laying on the tops of frames and watching the movements of the bees. The "bee-escape," or super-clearer, a device for removing the bees into upper hive-chambers so as to secure the honey, was also described, and the approved "smoker" exhibited. The smoke, Mr. Reid said, ought to be obtained from some form of cellulose. The construction of the modern beehive was then considered in detail, both British and continental systems being shown. Country "skeps" were deprecated as being inadequate for the proper treatment of the bees, and



for obtaining the proper productions of honey and wax. They become the lurking-place of "foul brood," the worst enemy of the bee keeper. In conclusion, he advocated greater attention being paid to this industry. We are importing large quantities of so-called honey from abroad, he said, while every year thousands of tons of excellent honey are wasted in our country districts for want of the bees to gather it. Beekeeping in most rural districts is undoubtedly remunerative, but there is a larger and more important question connected with bee-keeping—namely, the fertilisation of blossoms and the production of fruit and seed. A large grower of bush fruit in Huntingdonshire established an apiary in his grounds, and at once found that his produce increased more than fourfold. As he now sends off 6 to 10 tons of gooseberries per week during the season, the money-value of his bees is not to be estimated by the yield of honey alone, although this also is considerable. It has been found that some of our most highly-cultivated fruits are not self-fertile—that is, the blossoms on a tree will not fertilise each other, but must receive pollen from another tree before they can bear fruit. This is the cause of the absence of fruit on many trees that blossom luxuriantly, especially when planted singly in small gardens. What agent more suitable than a bee can be found to bring the golden dust upon which the future crop depends?

A short discussion followed, and Mr. Reid was heartily thanked.

### Thames Valley District Chemists' Association.

THE committee appointed at the first meeting of chemists in the Thames Valley District met at Kingston-on-Thames on Tuesday, April 21, to complete the arrangements for working the Association. After discussion a set of rules was drafted, the annual general meeting was arranged to take place in April in each year, and the subscription was fixed at 5s. yearly. The officers were appointed, and include: President, Mr. Alfred Higgs, J.P., Kingston; Vice-President, Mr. J. Parrott, Richmond; Treasurer, Mr. C. J. Palmer, Twickenham; Auditor, Mr. H. F. Peake, Twickenham; and Secretary, Mr. Frederick Harvey, 1 Claremont Road, Surbiton. It is contemplated that the Association in this district (which includes Barnes, Putney, Mortlake, Kew, Brentford, Hounslow, Richmond, Twickenham, Teddington, Kingston, Hampton, Molesey, Merton, Wimbledon, Surbiton, Esher, Walton, and Weybridge) will be well supported, and although it is at present the last of chemists' associations formed it will not be numerically the least. The motto adopted is, in the opinion of the committee, appropriate, and especially applicable at the present time to the craft generally, if the Pharmacy Amendment Bill now before Parliament is to be added to the statute-book—*Nihil sine unitate*. The Secretary asks us to state that he will be pleased to receive the names of chemists desirous of becoming members.

### Preston Chemists' Association.

AN informal meeting of this Association was held at 1 Garstang Road, Preston, on April 20, to discuss the Poisons Committee's report. The Hon. Secretary (Mr. Williamson) announced the receipt of a letter from the Blackpool Chemists' Association, inviting the Preston Association to join with them in waiting upon Mr. Hanbury, M.P., at Preston. He had also received a communication from the Federation of Local Associations, suggesting the wisdom of immediately approaching the local members of Parliament.

Mr. HADFIELD inquired as to the advisability of inviting the Coroner to furnish particulars of those cases of poisoning in which the indiscriminate sale of poisons had contributed towards death. Mr. ARKLE said that deaths from all causes were registered in the proper quarter, and could be seen by those interested in these questions. Mr. WILLIAMSON thought the Chief Constable should be asked to circulate the regulations as to the sale of poisons, but after some discussion it was decided not to take that step at present. Mr. ARKLE alluded to the difficulty of defining a "wholesale" transaction. The Hon. SECRETARY was of opinion that a

wholesale transaction was the selling of an article for resale. He urged that copies of the regulations regarding the storage and sale of poisons should be forwarded to every chemist in the town and district, whether qualified or unqualified; but it was deemed inadvisable to take any steps until after May 11. On April 21 Mr. Hanbury, M.P., had to return to London to attend a Cabinet meeting. He has, however, notified both Associations that he will be pleased to meet a deputation before May 11, either in London or in Preston.

### Lincoln Chemists' Association.

A MEETING of the members of this Association took place on April 16, with the President (Mr. Battle) in the chair. There were also present Messrs. Dixon, J. C. M. Battle, Hill, Shuttleworth, Aram, Watson, and Birkbeck (Hon. Secretary). It was reported that since the last meeting letters had been sent to the parliamentary member for the city (Mr. C. H. Seely) and to all the Lincolnshire members of Parliament, calling their attention to the possibility of pharmacy legislation from two different sources, and asking them to keep an open mind on the subject until the Association approached them more definitely. The SECRETARY read replies which had been received from several of the members, saying that on such a grave question as the alteration of the poison laws they would be pleased to receive a deputation. Letters were read from Divisional Secretaries in the county, some of whom found it impossible to keep well in touch with members of the Society owing to the wide area of their district. Mr. WATSON presented the address of Mr. W. L. Currie, and moved that he be supported by the members. This was carried. It was decided also to support Messrs. Cooper, Cross, Hills, Symes, Wootton, and Storrar. The meeting considered the address of Mr. Currie a very practicable one, and particularly approved of the paragraph concerning the Preliminary examination and the scarcity of apprentices.

### Sheffield Pharmaceutical and Chemical Society.

AT the meeting of this Society held in the Montgomery Hall, Sheffield, on Wednesday evening, April 22, there were present Messrs. G. Squire, P. Carr, Wm. Turner, J. W. J. Turner, R. D. Douglas, G. Ellinor, J. G. Jackson, G. T. W. Newsholme, G. E. Heaton, J. W. Whitworth, R. Tildesley, H. Watts, M. P. Goodyer, X. Jepson, A. J. Appleton, H. J. Williams, W. Parkin (President Naturalists' Club), A. R. Tankard, B. Hoole, M. H. Darling, Miss Cocking, and others. After letters regarding the Pharmaceutical Council election were considered, the PRESIDENT (Mr. John Austen) read his paper (see page 658) on

#### OLD SHEFFIELD PHARMACISTS.

In opening the discussion, Mr. CARR suggested that, with Mr. Austen's permission, the two papers should be printed.

Mr. SQUIRE, in moving a vote of thanks, said he agreed with Mr. Carr's remarks. He was always under the impression that his business in the Haymarket was opened a good time before it was, and had been told so by his predecessor.

Mr. ELLINOR seconded the resolution.

Mr. NEWSHOLME supported the motion and the suggestion that the papers should be printed, but thought it would be well for the Society itself to consider the desirability of publishing them. They had money in hand, and he did not think the Society could spend it in any better way. He had the privilege, some twenty-six years ago, of knowing some of the old Sheffield chemists—Mr. Hudson, Mr. Miller, Mr. Elliott, and many others—men who were wonderful men in their way. They were exceedingly able men, but each had his own characteristics. Although they were in the same neighbourhood, they were as different as could be. It was a very pleasant recollection to have seen the men and been allowed to call and see them in their own premises. When the Pharmaceutical Conference was held in Sheffield he was appointed Treasurer, and he could tell some pleasant stories of the chemists of Sheffield in those days and his interviews with them. Although on that occasion he went as a young man and



quite fresh to them asking for money, those old Sheffield men were glad to receive a youngster. The time was coming when they would again have the Conference in Sheffield, and he hoped the Treasurer then would have a similar reception. Mr. Newsholme went on to remark on the difference between business then and now. Knowing his close connection with the Pharmaceutical Society, they might wonder whether he thought they were better off to-day as pharmacists than were the chemists mentioned by Mr. Austen when there were no restrictions. These restrictions, it was said, interfered with business. Mr. Austen had referred to the brighterside. They did not know the damage done by the sale of "anodyne." Thousands of lives of infants in this country were sacrificed by the indiscriminate method of business in this respect. The man mentioned by Mr. Austen was conscientious, but still there was a great amount of freedom in the sale of poisons. Enormous quantities of anodyne were made in Sheffield, and it was sold to shopkeepers by the gallon and in barrels. The public were better protected now, but whether it was to the financial benefit of the chemist was another matter.

The motion was then put and carried, and Mr. Austen replied.

At the conclusion of the meeting the CHAIRMAN stated, for the benefit of the members of the P.A.T.A., that Scott's emulsion was now on the P.A.T.A. list.

### Glasgow Pharmaceutical Association.

THE closing meeting of the session was held in the Rooms, 94 West Regent Street, on Thursday evening, April 16, Mr. W. L. Currie (President) in the chair. Mr. T. MABEN, Ph.C., F.C.S., delivered his lecture on "A British Pharmacist in America." At the end of it the CHAIRMAN made some appreciative remarks, and a cordial vote of thanks to Mr. Maben brought the proceedings to a close.

### Edinburgh Chemists', Assistants', and Apprentices' Association.

ABOUT thirty members of this Association visited the Inveresk Paper Works, Musselburgh, on the evening of Wednesday, April 15. The company was received by Mr. J. Edington Aitken, analytical chemist, by whom they were shown over the mill and had all the different stages fully explained. The particular process followed was

#### THE MAKING OF PAPER

from Esparto grass (*Stipa tenacissima*). A visit was first paid to the machinery for dusting out foreign matter from the compressed grass, and then to the boilers in which it was being boiled with caustic soda under pressure. At this stage the plant employed in the alkali regeneration process was examined. It is on the principle of a reverberatory furnace for concentrating the dirty caustic liquor from the boilers. After evaporation of the liquor the soda and refuse (consisting mostly of vegetable matter) is raked over the top of the furnaces, so as to burn out the organic matter and convert the sodium hydrate into carbonate, which is dissolved in water and filtered through a bed of ashes. Lime is then added and precipitated as calcium carbonate, leaving a solution of sodium hydrate once more. All the caustic soda, except about 2 per cent., is recovered. The lime used is brought from Yorkshire, where it is obtained nearly pure—i.e., 99.9 per cent. CaO. The carbonate of lime is used by bottle-manufacturers in the district.

The process of washing the boiled pulp free of alkali, bleaching, and treating with anti-chlor, was then seen. The pulp was now washed by passing over wire gauze, coloured, size added, and all the water drained off. The drained pulp was then carried on canvas cloth and passed between rollers which pressed it into sheets, and next to the burnishers. Frictional electricity is developed at this stage, and some of the members got a pretty strong electric shock by touching the paper as it came off the heated steel burnishers, to be wound on a wooden spool at the end of the process. By touching the paper with one hand and a stream of coal-gas with the other the gas was ignited.

Mr. EDINGTON AITKEN was cordially thanked for his demonstration, and in his reply he said he was a member of their Association more than twenty years ago, and had left pharmacy to go into this special line of technical chemistry.

## Business Changes.

MESSRS. CURTIS & Co., chemists, have opened premises at 140 Old Kent Road, S.E.

NEWMAN'S DRUG STORES have recently been opened at 374 Barking Road, Plaistow, E.

MR. SIDNEY BASTOW, pharmaceutical chemist, has purchased Mr. H. G. Wildman's business at 9 North Street, Chichester, Sussex.

MR. W. D. RICHARDS, chemist and druggist, has taken over the business of Messrs. F. Davies & Co. at 91 Grosvenor Road, Highbury, N.

MR. F. A. STOREY, chemist and druggist, formerly of Worcester, has purchased the business at 36 Colne Road, Brierfield, near Burnley, formerly belonging to Mr. William Whitaker.

MR. E. YOULDON, glass-bottle merchant, has removed from Great Garden Street, Whitechapel, E., to new premises in Carter Street, Maplin Street, Mile End, E., where all communications should be addressed.

MR. D. HOLLOW, chemist and druggist, has taken over the business known as the "North Road Pharmacy," at 159 North Road, Plymouth, carried on for forty years by Mr. J. G. Netting, who has retired. Mr. Hollow is carrying out important improvements to the windows.

## British Pharmaceutical Conference.

A MEETING of the Executive Committee was held at 16 Bloomsbury Square on Friday, April 17. Present: Mr. T. H. W. Idris (President), in the chair, Mr. Holmes and Mr. Naylor (Vice-Presidents), Messrs. Leo Atkinson, Ed. White, and Ransom and Peck (Hon. General Secretaries), and Mr. Hearn (Assistant Secretary). Apologies for absence were received from Messrs. Atkins, Beggs, Boa, Boorne, Cummings, Martin, and Payne.

The Secretaries reported the receipt of acknowledgments from the families of the late Mr. John Moss and the late Mr. H. Collier, of the votes of condolence passed at the last meeting.

Mr. Naylor moved and Mr. Ransom seconded the following resolution relative to the death of the late Mr. Baden Benger, which was unanimously carried:

The Executive Committee records with very deep regret the great loss to the Conference caused by the death of F. Baden Benger. Mr. Benger filled the position of Hon. Secretary of the Conference from 1871 to 1884, and presided at the meeting at Bath in 1888. In addition to his scientific attainments his tact and courtesy were employed unreservedly for the benefit of the Conference, and contributed largely to its success. The members of the Committee desire to express their deep sympathy with the widow in her bereavement.

The Secretaries were instructed to send a copy of the above resolution to Mrs. Benger.

An application for a grant of 2*l.* from the Research Fund was approved.

The suggested publication of a General Index to the *Year-books* from 1886 to present date was then considered. After some discussion, in which the desirability of the publication of a new index was generally approved, it was decided, on the motion of Mr. Naylor, seconded by Mr. Holmes, that the Secretaries should ascertain the approximate cost of the work, and report to the next meeting.

Mr. Ransom reported his correspondence with the printers of the *Year-book* relative to its earlier delivery to members. They agree (under certain conditions) to guarantee delivery by November 1, and the contract was approved.

The question of members in arrear with their subscriptions was then discussed, and the Secretaries were instructed (under Rule 3) to remove the names of those who were five years in arrear.

Mr. Stiles Wm. G. Rich, of Brisbane (who was present at the meeting and signified his acceptance of the appointment), was appointed Colonial Secretary for Queensland.



## Diary Postcard Competition.

### FOREIGN AND COLONIAL SECTION.

THE periodical return of the orange-coloured postcards with stamps upon them that are eagerly pounced upon by our staff philatelists is one of the most interesting features of our work. THE CHEMISTS' AND DRUGGISTS' DIARY competitions annually recall the existence of brother-craftsmen in unexpected and little-heard-of portions of the globe. It is the annual contribution of our nomadic brethren to their *alma mater*, and it is a pursuit in which an ever-increasing number take part. But not only is the DIARY perused by the British-born. The quaint phraseology on many of these cards reveals (without recourse to the name and address) that the writer is a *confrère* struggling to put his opinions clearly in a foreign language. These, too, find the DIARY and its advertisements a source of pleasure and profit, and show that they are fully awake to the advantages gained by dealing in British goods.

### THE RESULTS OF THE COMPETITION

are (with one exception) identical with those arrived at by home competitors. The most interesting advertisement is said to be comprised in the series of pages dealing with the goods of Messrs. Burroughs Wellcome & Co. The most artistic pages are those of Messrs. Stevenson & Howell, but Vibrona (page 23), T. Tyrer & Co. (Limited) (page 339), and the United Alkali Company's page (205) have many admirers. The exception occurs in the opinion regarding the best business-producing advertisement. The home competitors gave "Daisy" the palm, but the foreigners think Messrs. Burroughs Wellcome & Co.'s the best, with "Daisy" as a hot second, closely followed by Messrs. Allen & Hanburys (Limited) (pages 181 *et seq.*), the Standard Tablet Company (page 321), Stevenson & Howell, Stiles (Limited), the Renson Manufacturing Company, Philip Josephs & Son, Vinolia (Limited), and several others. One wide-awake but imperfectly Anglicised assistant in an Ostend pharmacy thinks "To make advertisements in THE CHEMIST DRUGGISTS' DIARY" the proper answer. The Crown Perfumery Company are voted the most artistic in perfumery and toilet-articles, and Fellows's syrup abroad as well as at home is the proprietary most prescribed. The photographic sideline is the most profitable, but there is an extraordinary variance of opinion on this point, for many, especially in Australasia, find the brushware of Messrs. G. B. Kent & Sons (Limited) a source of profit, while soda-fountains (in South Africa, India, and Canada) and mineral-waters (especially in India) have warm favourites. Amongst other side-lines mentioned are trusses, infants' feeding-bottles, spectacles, and analytical and dental supplies. In Sicily one competitor pins his faith to Beecham's pills; while a subscriber in Syria swears by Howards' quinine. Calvert's carbolec preparations are thought much of at Lausanne; and in Holland the specialities of Messrs. Robinson & Sons (page 607) are appreciated. Only two competitors have placed the six answers correctly, and we award them 11. 5s. each. They are:

Mr. A. E. HUSTLER, Unley Road, Unley, South Australia.  
Mr. C. J. PROBERT, c/o Mr. J. R. Sewell, Thames Street, Oamaru, N.Z.

To each of the six named hereunder, who have given five correct answers, we shall send a copy of "Diseases and Remedies":—

Mr. F. W. Smith-Ansted, Christchurch, N.Z.  
Miss Winnie G. Sloan, c/o Charles & Co., Cawnpore, India.  
Mr. C. R. J. Glover, 165 Gilles Street, Adelaide, South Australia.  
Mr. R. F. Johnston, Satrobe, Tasmania.  
Mr. T. Russell, Otorohanga, King County, N.Z.  
Mr. O. G. Krüger, Bartley Crescent, Wayville, South Australia.

### CRITICISMS.

We select a few of the criticisms and comments from among a heterogeneous collection both grave and gay:—

Caterers for the Empire.—Laurier says Canada is the granary, Seddon the dairy is New Zealand, and Barton says Australia is

the Empire's butcher. Can anyone dispute your claim to be the druggists' diarist through the British Empire? The sun never sets and the ink never dries on THE CHEMISTS' AND DRUGGISTS' DIARY.—T. H. KIRKBY, Wellington, N.Z.

I read, page 208, four reflections or personal advices on the "substitution" in pharmacy. I think substitution is but justifiable in two cases—first, when the chemist pertinently knows that something else would be better or is really sovereign; secondly, when he knows that purchaser asks for something too expensive for his power, and that he can get cured with something cheap. I never substitute.—LÉON NYSSEN, Ostend.

"Now is the winter of our discontent made glorious summer" by the use of Stevenson & Howell's winter drinks.—THOS. RUSSELL, Otorohanga, N.Z.

THE CHEMISTS' AND DRUGGISTS' DIARY, 1903, proves the strong position of the science of pharmacy against every kind of natural curing method.—A. W. NAUDIN TEN CATE, Amsterdam.

Clarke's blood-mixture, Angier's petroleum, Cuticura preparations, Sen-sen, Seigel's syrup, Himrod's cure, Sims's Tatcho, Rowland's preparations, Wilkinson's sarsaparilla, Scott's emulsion, Steedman's powders, Grimault's preparations, Dr. De Jongh's cod-liver oil, Mellin's food, ought to be represented in your advertisement columns. As colonial Custom-houses take extraordinary duties on all alcoholic preparations, such as tinctures of various strengths, extracts, &c., there ought to be some tables for the actual duty to be paid for 1 lb. tinctures, &c., taking it 6 per cent. on 1 gal. rectified spirit.—BAPUJI DADABHAI DORDI, Karachi (India).

THE CHEMISTS' AND DRUGGISTS' DIARY, 1903, is a compilation of most that is useful and interesting to chemists and druggists, wholesale and retail, at home and abroad.—JAMES JOHNSTON, Johannesburg.

Your DIARY, it is useful, it is handsome, simply grand;

In fact, it may be called a thing of beauty.

But what I want to know, for I cannot understand,

Is why I have to pay a shilling duty.

J. ANDERSON, Melbourne.

The "monograph" on eucalypts is the most scientific part of the DIARY. The poison schedules and Commonwealth tariff and regulations are most useful. The Adulteration of Food and Drugs Act, new regulations up to date want printing; also best test for each sophistication, and references to additional tests. The examples of labels that will and will not pass the Inland Revenue are most useful.—A. H. JACKSON, Melbourne.

I sing the song of Iris blanc,  
And pills to make one hazy,  
And sound the praise in Troche lays  
Of balsam and the Daisy.  
For what can beat the mem'ry sweet  
Of senna and Solazzi?  
To cool the thud of throbbing blood  
Cascara does quite aisy.  
But doctors write in black and white,  
In hieroglyphics mazy;  
To read their stuff is quite enough  
To drive poor chemists crazy!

J. D. JOHNSTON, Launceston, Tasmania.

"Advertising is to business what steam is to machinery—the grand propelling-power" (Macaulay).—CHARLES R. J. GLOVEE, Adelaide S. Australia.

We think there can be no doubt that Mr. T. H. KIRKBY and Mr. T. RUSSELL each deserve half a guinea for their happy comments.

## New Books.

Corbin, H. E., Stewart, A. M. *A Handbook of Physics and Chemistry, adapted to Requirements of First Examination of Conjoint Examining Board of Royal Colleges of Physicians and Surgeons, also for General Use.* 2nd ed.  $1\frac{1}{2} \times 4\frac{1}{4}$ . Pp. 446. 6s. 6d. (Churchill.)

Poynting, J. H., and Thomson, J. J. *Text-book of Physics: Properties of Matter.* 168 illus. Rev. ed.  $9\frac{1}{2} \times 6\frac{1}{4}$ . Pp. 236. 10s. 6d. (Griffin.)

CHEMICAL and Pharmaceutical products valued at 530,730*l.* were imported into Mexico during 1901-2, against 517,064*l.* during 1900-1.

THE import-duty on calcium carbide into Costa Rica for use in the generation of acetylene-gas has been reduced to 6c. per kilo, or, including the Government wharfage-tax, about 1*d.* per lb.



## Our Town Traveller.

EASTER holidays and the Arctic conditions of the climate have combined to produce in business circles a slump in cheerfulness. The grumbling is pretty general, and only here and there I drop across the persistently satisfied individual who has nothing to complain of. But although much grumbling is heard, there is little actual indication of slackness of trade in pharmaceutical lines, and prospects are better than they have been for some time. The cold weather presages a frigid summer, but bathing appurtenances were never more varied or prettier than this year, perfumery was never more chaste, or the soda-fountain business more flourishing. Taking it all in all, I conclude that the jeremiads of the pessimist must be taken with a spice of scepticism.

Some time ago when visiting the factory of Messrs. W. J. Bush & Co. (Limited), at Ash Grove, Hackney, on another errand, I took the opportunity to search out Mr. W. S. Gill, who looks after the

### PERFUMERY.

The perfumes for the season introduced by Messrs. Bush include a new line of Dulcinea (last season's success) to retail at 1s. These are reproductions on a smaller scale of the larger and better known sizes, and they are good value for the money. The same may be said of a new sixpenny line of Parma Violets, put up in glass stoppered bottles. In addition to the long line of quadruple essences produced by "Busson Frères," two others, "English Roses" and "English Lilies," have been added this year. These are the ordinary selling lines, but if elaborate boxed perfumes are sought after these may be had in great profusion. Numerous designs in *l'art nouveau* or elaborate silk-covered caskets with painted lids are to be had, and a marvellous plush creation, containing a large finely cut bottle of perfume, plays musical variations when the lid is raised. The latter was designed for a foreign potentate, but may be duplicated for such as hanker after it. Another novelty is a series of boxed perfumes got up specially for Freemasonry. These are given away as souvenirs on ladies' nights or on special occasions, and they bear emblems of Masonry, and may be "suitably inscribed." To buyers of bulk perfumes in 5-lb. or 6-lb. quantities Messrs. Bush give away free a glass-stoppered stock bottle. "Vinaigre Toilette" is an elegant toilet adjunct put in nice bottles and perfumed with Violette de Nice.

### GLASSWARE.

A recent visit to Messrs. H. Poths & Co., in Bury Court, St. Mary Axe, E.C., revealed an enlarged and improved showroom and a dazzling array of glassware. The increasing variety in sample-tubes and pill-tubes (for packing proprietary pills and such like) I especially noted. Each series—screw-top, cork, and tops with or without indiarubber pads inside—is supplied in about one dozen sizes, and they are all nicely finished bottles, with no rough edges or badly fitting tops. A fine show of fancy-glass goods is given, and the assortment is not confined to that on view, for Mr. Poths prides himself on being able to supply a chemist with all the glass he requires for his new shop "by return of post" as it were. Various types of continental designs in shop-rounds and earthenware are always to be seen here, and some of the French and German styles of labelling are approved by English buyers. The ribbed-all-round poison stock-bottles, with raised lettering in red, are a special feature with Messrs. Poths & Co., who had them in stock before the storage regulations became obligatory. Mr. Poths is cheerfully confident of the good business future of our colonies, as well he might, for he informed me that in South Africa alone his firm had fitted out over two dozen shops recently.

### PALATINOIDAL.

As I stood at the window of the oak-bound offices of Messrs. Oppenheimer, Son & Co. (Limited), at 179 Queen Victoria Street, E.C., and looked over the barges and coal-hulks on Father Thames towards Westminster, I wondered whether it would not be well if some of the oratory in that great talking-shop could not be confined to palatinoidal dimensions.

It would be easier for Ministers, I mused, if unpopular taxation could be administered to the public in a pleasant kind of palatinoid, that would act as a mild aperient for the benefit of the Revenue.

"Aperient?" suddenly said Mr. Ball, echoing my thought; "we have just produced an ideal one. Laxoin (dihydroxy-phthalophenon, gr. 2) is the most successful and trustworthy synthetic aperient yet produced. It has none of the disadvantages of vegetable purgatives, which, by the variance in their alkaloid-content, give diverse results. It is palatable (being, of course, in a palatinoid), and it neither gripes nor depresses."

"Well, that was not exactly the aperient I was thinking of," said I; "but it will serve."

Laxoin, which is scarcely yet on the market, is indicated in constipation, jaundice, and diseases of the intestines.

### SPONGE-BAGS AND HOSIERY.

The chemist shivers at the mention of the bathing season, but he should remember that it is not always winter. Some people are satisfied that there will be warm weather this year, and Messrs. F. Schutze & Co., of Southwark Street, S.E., are amongst the sanguine. To that end they are showing some very pretty patterns in sponge-bags and bathing-caps. The sponge-bags are of silk, sateen, jaconette, and silkteen—the latter being a special material for hot climates, and which may be boiled if necessary. There are seven different kinds of sponge-bag on show, each kind being mounted in six sizes on a showcard, and all vary in pattern.

In this department Messrs. Schutze are beating the continental maker on his own ground, as they recently have had a large order from a German firm for these goods, which used to be bought in Germany. A novelty I also examined was the seamless elastic hosiery, illustrated herewith. There is, as will be seen, an entire absence of seam, the hose being in one continuous even piece. There is thus, it is argued, more elasticity and durability, as there are no unyielding parts, and none of the rubber cords are cut in the binding that is usual with the ordinary style of stocking. The absence of seam increases the comfort to the wearer; and it is claimed that the fabric is much stronger than the ordinary make, ten threads being employed in weaving the hose as against four in ordinary cases. The substance is thin, light, and porous, and is no dearer than the better-known varieties. Amongst other novelties I inspected a new ear-trumpet, "The Master," concerning which there are many good reports from people afflicted with deafness. The trumpet has a cone-shaped receiver attached to a stand for setting down on table or desk, and there is a long flexible tube ending in a vulcanite ear-piece for use by the afflicted. The prices range from 23s. to 52s. 6d. each, according to size. In perfumery I noticed several new lines, to sell from 1s. upwards, and a variety of puffs with handles of imitation precious stones set in imitation gold.

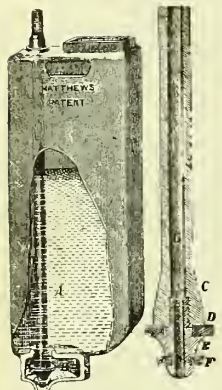


### SUMMER BEVERAGES.

Another gentleman who is not harrowed with gloomy forebodings of a cold wet summer is Mr. Ray Stiles, senior managing director of Stiles (Limited), 72 Gray's Inn Road, E.C. He is rather proud of an attractive new booklet, with a fetching cover and profusely illustrated, 25,000 of which the company are issuing to the trade. The book, which has for frontispiece an excellent portrait of John Matthews, the founder of the soda-fountain business in America, gives the history of the American soda-fountain "down to date." It describes minutely (and illustrates) the different com-



ponents of the various kinds of Matthews soda-fountains, and testimonials from all parts of the country are set forth. It must be noted that these testimonials are all of this year's date, none going further back than February; and, from the general satisfaction expressed by chemists, confectioners, and caterers throughout the country, it would appear as though the apparently big initial cost were justifiable. One chemist, indeed, states that "if properly handled [the fountain] can be made the means of inducing a good prescribing business." The latest form of the Matthews syrup system is the oscillating-tank, the front panels of the fountain being so arranged that they tilt forward, and allow easy access for filling the glass



syrup-jars, which are removable. The measuring-device (see illustration) is a small cylindrical glass chamber attached to the lower part of the syrup-jar. It has an opening at the top connecting with the interior of the jar, and another at the bottom to allow the syrup to flow into the tumbler. The operating-valve (shown in section) is within the measuring-chamber. When syrup is not being drawn this valve is held down upon the lower opening by means of a weight above the top of the syrup-jar, which rests upon an ebonite rod connected with the valve. When the valve is down the measuring-chamber is filled by gravity from the interior of the syrup-jar. When syrup is being drawn the operator presses upward

either a button or a lever, on which rest the weight, rod, and valve, so that the valve closes the opening between the syrup-jar and measuring-chamber, thus shutting off the flow of syrup from the syrup-jar, and permitting the syrup in the measuring-chamber to flow directly into the tumbler. The "Monitor" fruit-syrups are supplied in two dozen flavours by Messrs. Stiles, who have evolved a new series of propositions for the buyer (which they will send to any chemist on application), and which shows an increasing profit according as the size of the purchases increases. These "propositions" are worked out with alluring mathematical exactitude, as the following excerpt will show:

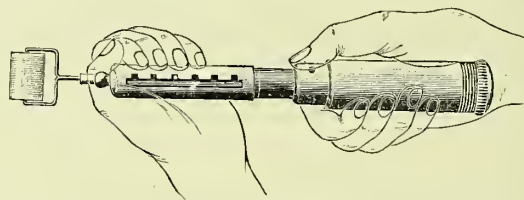
Cost per 100 for the completed beverage being		£	s.	d.
100 beverages selling @ 2d. Receipts	0 16 8	Profits	0 13 8	
100 beverages selling @ 3d. Receipts	1 5 0	Profits	1 2 0	
100 beverages selling @ 4d. Receipts	1 13 4	Profits	1 10 4	

Such profits are idyllic in these degenerate days, and perhaps some fountain-owning chemist will give us his actual experience some day.

#### VARIA.

In the showrooms of Messrs. R. Hovenden & Sons (Limited), at Berners Street, W., I walked my legs weary the other day, and saw many more things than I have space to mention. The perfumery-department is all agog for summer trade, and many new styles in toilet-goods have been devised. The "genuine star" eau-de-Cologne is put up in wickers (portable for travellers) and retails at 1s. upwards. Messrs. Hovenden's own particular lavender-water ("Sweet lavender, Maud Millett brand") has a good show and an attractive label. It retails at 1s., 2s. 6d., 5s. 6d., and 10s. 6d. Passing onwards I was shown, in another department, a new "wire-woven" bath-mat to retail at 1s., which contained 123 pieces of wood, and may be doubled and carried under the arm. Here I also saw whalebone hair-brushes (selling at 2s. 9d. retail, upwards) and an extensive assortment of puffs. The pneumatic pocket-puff is very "cute." It is in a nickel box, both ends of which screw off. The powder is put in the bottom end, and percolates through a sieve-like arrangement on to the puff. The top lid (covering the puff) has a mirror fixed in the inside. There are snowball puffs, with floral ribbons or a bunch of violets for handle, and "L'ami des Dames" is an elegant powder-distributor set at right angles on the end of an ivory handle, designed for neck and shoulder use. A little further on I inspected a new battery (eight-cell continuous current) for electrolysis. The battery is set in an oak case, with handle on top,

and has needle-holders and needles complete for 39s. 6d. The "Ever-ready" portable electrical coil, shown herewith, is used for massage. It is perfectly simple and safe. A dry battery is fitted into one end, and the massage-roller being fixed, the button is pressed and the roller applied to whatever part of the body is required. Ladies can use it for



face or shoulders. The current may be increased by drawing out the sheath at one end of the coil and fixing in that particular notch on the scale giving the desired result. The apparatus retails at 15s. each, and refill-batteries are charged 9d. each. On the second floor I saw 2,000 square feet devoted to foreign perfumery and toilet goods—French, German, and American. France, of course, is predominant. Roger & Gallet, Pinaud, Dorin, Houbignat, Piver, Lemoine, and others being fully represented. Lohse, Boehm, Lechner, and others stand for the Fatherland, while the American houses are in nowise forgotten. To attempt an enumeration of the new things there is too gigantic, but Pray's manicure preparations—"Perla Toca" (toilet-powder leaves in three colours)—and some of Picard's latest perfumes ("Lilarum," "Giberina," and "Kisana") struck me as noteworthy. I visited various other departments, being shown the beautiful simplicity of the "Easy" curlers and wavers, the bewildering assortment of shaving-mugs, curling-irons, razor-strops, dressing-combs, and all the other requisites for the toilet for which Messrs. Hovenden have been famed for so many years.

#### SCOTT'S EMULSION PROTECTED.

Since Dr. Collis Browne's chlorodyne was put on the P.A.T.A. list Mr. Glyn-Jones has not hooked so big a fish as Scott's emulsion, which was re-born as a protected article on Wednesday. Thinking that Mr. Glyn-Jones might, in consequence, be an inaccessible personage, the Editor suggested that I should see what the makers had to say about it. When I got to the palatial offices in Farringdon Avenue, I found Mr. Scott there (he is making one of his periodic visits to London from his home in Geneva), and I had a chat with him. I will not go into the details of the interview, for it will suffice to say that the "listing" is not a change of front on Messrs. Scott & Bowne's part. They have a system of price-protection on the Continent and have for a long time been considering how they could arrange for Great Britain and Ireland—either by an individual scheme or through the P.A.T.A. The latter they have chosen because they feel it is the scheme which best meets the approval of all parties, and, said Mr. Scott, "we want to show retailers that we are not unfriendly to their interests. It is no pleasure to us that some should have to handle our goods at no profit." Mr. Scott quite recognises that it is to his firm's interest to have distributors with them rather than against, and he hopes the listing will discourage any substitution there may have been. "I do not ask retailers," he said, "when a customer says, 'I want a bottle of cod-liver oil emulsion,' to give them Scott's, although they could not do better, but when 'Scott's Emulsion' is asked for, I want it to be given—that is fairest all round." The new prices enable purchasers of 1l. worth of the emulsion to sell at 15 per cent. profit on the minimum fixed prices, and 33½ per cent. if they buy 5l. lots from the makers and sell at the advertised prices. From this matter we returned to substitution (which is a real grievance with all proprietors of proprietaries), then discussed the essential ingredient of Scott's emulsion, to wit, cod-liver oil. "Curious you should fix the prices when the oil is so unsettled," said I. "Five hundred shillings a barrel," replied Mr. Scott. "We have plenty of it: enough to last us a year, and all good. There is a lot of queer stuff about, but when people take Scott's emulsion they take cod-liver oil—all that and no machine oil."



## Novelties.

### Chemists' Toilet-soaps.

IN these days, when all classes of persons appreciate the difference between a good toilet-soap and the common qualities of household soap, there is a big field of business to be cultivated by retail traders. When the well-to-do only used toilet-soaps chemists and druggists had the business to themselves almost. At the present time that is not the case, although the business actually done by chemists in toilet-soaps is several multiples of what it was twenty years ago, before drapers and others thought of toilet-soaps as a side-line. It is well to conserve this business—to extend it, if possible (and we think it possible), by maintaining the distinction for quality and style which is the distinction of the chemists' soaps. This principle is apparently recognised by Messrs. Edward Cook & Co. (Limited), the soap-specialists, of Bow, E. They make a feature of chemists' soaps, made from pure fats, with just enough alkali for saponification, delicate and non-irritating perfumes, and innocuous colours, where these are required. The soaps are hard and economical, and free from sodium silicate. These remarks apply to the soaps generally, but, in order to accord with the requirements of the chemists' soap-trade, Messrs. Edward Cook & Co. (Limited) have a list of toilet-soaps which they reserve exclusively for chemists, and we suggest to subscribers that they should send for copies of this list, which, with the sheets of three-colour process-prints of the soaps and boxes, will enable them to judge the suitability of their products for all grades of chemists' retail. The soaps range in price from 1d. to 1s. per tablet, and the quotations are given by the gross, by the dozen boxes of three tablets each, and otherwise, the minimum retail prices being given in each case. Those who want a popular 2d. tablet of good size, yet pure in quality, can get that in a variety of styles. The "Rosalin," "Athenia," and "Cream of Lilies" tablets are typical of high-class styles, which may be retailed at 1s. a box. They are exquisitely perfumed, handsomely wrapped, and the boxes are of leatherette embossed in gold. These can be made the chemist's own speciality, and the firm offer liberal inducements by furnishing one's own moulds, wrappers, &c., at a nominal charge. They make a special feature of this department. We have had the opportunity of testing the soaps, and find them to be "honest goods." The firm are also making coal-tar soap and toilet carbolic soap (5 percent.), which are durable, and put up in attractive style. Their shaving-soaps are nice, and they supply chemists with a fluid soap for making shampoo liquids, which must be a great convenience.

### An Essential-oil Report.

THE increased interest taken in this country in the chemistry and properties of essential oils is commendable, because in several respects the English trade in these products has led the way. Frequent contributions to our columns show that several houses keep pace with scientific methods, and we have this week evidence from the London Essence Company that they mean to keep their clients informed of the more important advances in this department of knowledge. The company have commenced the publication, in pamphlet form, of a half-year report. The proof-copy, which we have just glanced over, shows it to be a useful publication. There are notes in it on essential oils of anise, bay-leaf, beech-bud, cedar-wood, citronella, fennel, gardenia, matico, neroli, peppermint, rue, bergamot-leaf, citron, lemon, mandarin-leaf, verbena, and vetiver, as well as notes

on recent publications dealing with essential oils. A single example of the information given must suffice to show the nature of the pamphlet:

*Peppermint Oil.*—All samples of peppermint oil should now be carefully examined. We have found a very large number of samples recently which contained considerable amounts of either petroleum or camphor oil. Many of these samples have a sp. gr. lying between 0.890 and 0.900 and an optical rotation of about  $-5^{\circ}$  to  $-10^{\circ}$ . The menthol-content is, of course, exceedingly low. We have examined a number of typically pure samples, and give the results for the guidance of our friends:

#### Pure Peppermint Oils.

—	Sp. Gr.	Rotation	Free Menthol	Total Menthol
1 (American) ...	0.915	$-29^{\circ} 10'$	47 %	57.4 %
2 " ...	0.909	$-25^{\circ} 4'$	50.1 %	56.9 %
3 " ...	0.9125	$-24^{\circ} 5'$	48.5 %	57.4 %
4 (English) ...	0.908	$-23^{\circ} 8'$	46.2 %	51.8 %
5 " ...	0.9079	$-25^{\circ} 4'$	48.2 %	55.4 %
6 (Japanese dementholised)	0.904	$-22^{\circ}$	32.4 %	39.5 %
7 (German) ...	0.907	$-27^{\circ}$	39.0 %	51.0 %

Those who would like to get copies of the report regularly should communicate with the London Essence Company, Camberwell Green, London, S.E. We understand that it is published gratis.

## Personalities.

MR. PERCY KNOTT has been elected Chairman of the Workhouse Committee of the Bolton Board of Guardians.

MR. HARRY R. SMITH, chemist and druggist, has been unanimously re-elected parish warden of Dursley for the third time.

MR. FRED. W. FLETCHER (Fletcher, Fletcher & Co., Limited) leaves to-day per P. & O. s.s. *India* for Marseilles, en route for Italy.

MR. H. F. COOK, chemist and druggist, of Chesterton, has been appointed a member of the Education Committee for the county of Cambridge.

MR. A. SIDNEY CAMPKIN, J.P., President of the Cambridge Pharmaceutical Association, has been reappointed Vice-Chairman of the Cambridge Board of Guardians.

MR. RALPH CASSIE, chemist and druggist, of Newgate Street, E.C., was re-elected Senior Churchwarden of Christ Church, Newgate Street, at the Easter Vestry.

MR. G. U. SPRATT, chemist and druggist, manager of Boots' London Road branch, Nottingham, has been appointed vicar's warden for St. Philips, Nottingham, for the sixth time.

MR. THOMAS BREWIS (of Brewis & McIntosh, chemists, Fratton Road and Albert Road, Southsea) has been unanimously elected Chairman of the Portsmouth Board of Guardians.

THE AMERICAN AMBASSADOR, together with more than a hundred friends of Mr. Frederick C. Van Duzer, are to give Mr. Van Duzer a complimentary dinner on April 27 at the Prince's Restaurant, Piccadilly.

MR. GEORGE JAMES GOSTLING, chemist and druggist, Chairman of the Urban District Council for Stowmarket, was, at the annual meeting held on April 17, unanimously re-elected Chairman for the ensuing year.

MR. J. M. TAYLOR, formerly with Messrs. Corby, Stacey & Co. (Limited), is now representing Messrs. F. Schutze & Co. in perfumery and general sundries. His ground will comprise the North of England and Scotland.

COUNCILLOR P. J. ASHFIELD, chemist and druggist, has been appointed managing director of the Queen's Palace, Rhyll. Mr. Ashfield appears to have a natural aptitude for



such work, having organised several very successful public entertainments in Rhyd during past years.

MR. W. S. GLYN-JONES, of the Middle Temple, and Secretary of the Chemists' Defence Association, has passed in the first class the examination of the Council of Legal Education in Evidence, Procedure, and Criminal Law, for qualification as a barrister.

MR. JOSEPH ATTO, who is 70 years of age and has been in the employ of Messrs. Dakin Brothers, wholesale druggists, 78 Middlesex Street, E.C., for the past forty-five years, cycled from London to Lynn, in Norfolk, on Easter Sunday, returning to London on the following Tuesday, taking ten hours on the outward journey, and eight and a half on the return, and putting in an appearance as usual at business the next day.

THE engagement is announced of Mr. Thomas Wakley, jun., L.R.C.P., only son of Mr. Thomas Henry Wakley, F.R.C.S., of 5 Queen's Gate, and grandson of the late Mr. Thomas Wakley, M.P. for Finsbury, Coroner for West Middlesex, and founder and editor of the *Lancet*, and Miss Gladys Muriel Barron, eldest daughter of the late Mr. Norman Barron and of Mrs. Norman Barron, and granddaughter of the late Dr. G. B. Barron, J.P., of Southport.

MR. G. CLARIDGE DRUCE, of Oxford, who has been making an extensive tour through Italy, the Ionian Islands, Greece, Asia Minor, and Turkey, had the privilege of seeing, by special permission, the Selamlık on Good Friday, when the Sultan goes in state to worship at the Mosque of Hamid II. This permit allowed the scene to be witnessed from the terrace of the royal palace immediately opposite to the entrance to the mosque. The approaches were kept by 10,000 picked men from the military and naval forces, and a most magnificent effect was created by the varied and brilliant uniforms, the royal eunuchs, and the richly dressed but veiled Sultan. The Sultan bowed most affably to the visitors on the terrace, and during the short service richly dressed servants handed round silver bowls of cigarettes with the Imperial cypher on them. The day was perfectly fine, and the whole pageant was of signal magnificence. In the evening Mr. Druce had the honour of being the guest at dinner of Dr. Clemo, Medical Officer of the Board of Health of Constantinople. During the following week Mr. Druce hoped to climb the Bithynian Olympus, which is a rich botanical hunting-ground.

## Produce Notes.

### A Formosan Camphor-forest.

The Formosan correspondent of the *London and China Telegraph* reports the discovery of a primeval forest in South Formosa, covering, it is said, 50,000 acres, and containing 120,000 camphor-trees, measuring from 7 to 18 feet in girth. These trees are roughly estimated to yield 10,000,000 cattiees of camphor, which, purchased by the monopoly-office at 18 yen per 100 cattiees, will be approximately worth 1,720,000 yen.

### American Roots and Herbs Scarce.

We have already called attention to the great scarcity and higher prices of roots and herbs in the United States, and in this connection the *New York Commercial* states that no relief can be afforded until a wet season sets in. There are some roots which can be secured for such a small price during favourable seasons that it hardly pays to bring them to market which cannot be secured now at all, except from those who have secured supplies in a previous season. An instance is crawley-root, used in the preparation of nerve-tonics. Ordinarily it can be bought for from 75c. to \$1 per lb. Now it is quoted \$2.40 per lb., as the supply is practically all controlled by the dealers.

### Casein

A Bill has been laid before the French Chamber proposing that a duty of 40f. tariff general and 25f. tariff minimum per 100 kilos. should be imposed on casein imported into France. The Bill points out these duties are necessary to protect the French industry in view of the fall in prices of this product caused by the cheapness of milk on the American cattle-stations. As France consumes 600,000 kilos. of casein annually—which is used for various purposes, dyeing, printing (tissues), manufacture of varnishes, paints, paper, imitation ivory, horn, &c., replacing gelatin, albumen, and glues of much higher prices—its manufacture in France would, it is said, ensure the sale of 21,000,000 litres of

milk per annum. The matter has been referred to the Customs Committee for report.

### Indigo.

The latest contribution to the already voluminous literature of indigo is a lengthy circular, issued by Mr. C. E. Roeper, of Hamburg and Calcutta, which is evidently intended to act as a corrective to the "panicky" feeling that has prevailed among producers of the natural article since the introduction of synthetic indigo. Pressure on our space prevents us giving a free translation of the circular, but the whole trend of Mr. Roeper's remarks are in favour of the natural product. The high prices which prevailed last year were due to a much better demand, and large orders remained unexecuted in Calcutta, as stocks were insufficient. The United States buyers were also large purchasers at the higher rates, and it is significant to learn that after extensive trials with synthetic and natural indigo, many of the dye-factories have returned to the latter.

### Madagascar Beeswax.

In the course of an article in *La Quinzaine Coloniale* of March 10 it is stated that although Madagascar wax has always been appreciated on the London markets, no colonists have so far taken up the industry seriously in spite of its offering good prospects of remunerative return. There is no doubt (says the Governor General, who writes the article) that bee-keeping, either alone or in connection with agricultural work, could be carried on extensively in Madagascar with good chances of success. Bees abound in the forest regions which run from north to south parallel to the coast. The exports of wax in 1901 amounted to 262,923 kilos., valued at 649,750f. (25,989l.), against 217,913 kilos., valued at 507,800f. (20,312l.), during the preceding year. The chief exporting centres are Tamatave, Mananjary, Vatomandry, Farafangana, Majunga, Analalava, Diego-Suarez, Vohémar, and Maroantsetra. Rafia, gum, copal, and rubber are also collected by the natives at the same time.

### Chinese Exports to U.S.A.

Among the exports declared from the consular district of Shanghai, China, to the United States in 1900, 1901, and 1902 were the following:—

	1900	1901	1902
	\$	\$	\$
Albumen ... ..	3,945	6,305	12,344
Antimony ... ..	15,013	2,411	81,359
Galls ... ..	33,198	19,255	39,094
Musk ... ..	45,142	58,353	68,910
Nut-oil ... ..	55,700	23,611	153,374
Rhubarb ... ..	13,866	—	6,610
Wood-oil ... ..	—	—	59,178

### West Indian Lime-juice and Lime Oil

The *Barbados Agricultural News*, of March 14, contains an account of the cultivation of limes in the West Indies, and of the trade and industries connected therewith, from which we learn that the island of Dominica exported raw and concentrated lime-juice valued at 32,212l. during 1902, and essential oil of limes to the value of 2,952l. The average yield of limes per acre varies from 230 barrels on good soils to as low as 50 barrels on poor lands. From a barrel of limes 7 to 8 gallons of juice are obtained, which is either shipped raw or concentrated. The latter is boiled down to a density of 10 or 12 to 1—i.e., 10 gallons of raw juice to one of concentrated. It takes on an average 80 barrels of limes to give 1 hoghead (54 gallons) of concentrated juice. The production of essential oil of limes forms an important branch of the industry. The oil is obtained from the rind of the ripe fruit and is exported either as "hand-pressed or rind oil," or as "distilled oil." In the preparation of the former the oil is extracted by the ecuelle process before passing the fruit through the mill. Distilled oil is obtained from the juice, after milling, by the ordinary process of distillation. The yield of hand-pressed oil averages about 3 oz. per barrel of fresh limes, and distilled oil is produced at the rate of about 2½ gallons for each hoghead of concentrated juice. The island of Montserrat, one of the chief centres of lime-cultivation, exported lime-juice to the extent of 1,100f. in 1901. The yield of limes in Montserrat when the trees are in full bearing is at the rate of about 160 barrels per acre. The yield of juice is calculated at about 8 gallons for each barrel of limes. Concentrated juice is boiled down to a density of 7 or 8 to 1, that is, 7 gallons of raw juice to 1 gallon of concentrated. About 2 oz. of hand-pressed oil are obtained from a barrel of limes, and about 50 oz. of distilled oil from a puncheon of concentrated juice. At Jamaica, Trinidad, and Antigua, the cultivation of limes is carried on to a limited extent, the value of lime-juice exported from these islands during the year 1900 being 7,496l., 396l., and 195l., respectively.



## Trade Report.

**NOTICE TO BUYERS**—The prices given in this section are those obtained by importers or manufacturers for bulk quantities or original packages. To these prices various charges have to be added, whereby values are in many instances greatly augmented before wholesale dealers stock the goods. Qualities of drugs and oils vary greatly, and higher prices are commanded by selected qualities even in bulk quantities. It would be unreasonable for retail buyers to expect to get small quantities at anything like the prices here quoted.

### 42 Cannon Street, London, E.C.: April 23.

THE tone of the produce markets is quiet, and so far as crude drugs are concerned the only movement of importance has been a further advance in ipecacuanha. Most buyers of drugs are, however, waiting the auctions next week, when the supplies, which have accumulated since the last auction, will be offered. At the London sales of cinchona on Tuesday there was a good demand without change in the unit, but compared with the last Amsterdam sales prices advanced about 10 per cent. Quinine has remained lifeless, and there is now a margin of quite  $1\frac{3}{4}$ d. between the second-hand price and makers'. Cod-liver oil closes firmer and is very scarce. Opium and morphine are firm, but quiet. Gentian, cochineal, and Chinese galls have advanced. American peppermint oil is steady, and advices from the other side are "bullish" this week. Otto-of-rose may go higher, owing to the Balkan crisis. Cream-of-tartar is rather firmer, and copper sulphate, potassium cyanide, and sulphate of ammonia are easier. A large spice-auction was held on Wednesday, the features of which were the heavy offerings of ginger and tamarinds. The following are the principal movements of the week:

Higher	Firmer	Easier	Lower
Cochineal	Acid, tartaric	Ammonia	Mace
Galls (China)	Agar-agar	sulphate	Nutmegs
Gentian	Cream of tartar	Copper	Tamarinds
Ginger (Cochin)	Ginger	sulphate	(W. I.)
Oil, cod-liver	(Jamaica)	Galls (Persian)	
Soda uirtrate	Ipecac. (Cart. and Rio)	Ginger (Japan)	
		Pot. cyanide	

### Arrivals.

The following drugs, chemicals, &c., have arrived at the principal ports of the United Kingdom from April 15 to 21, inclusive: Acid, acetic (@ Norway), 53; acid, carbolic (@ Rotterdam), 50; acid, oxalic (@ Hamburg), 26; acid, tartaric (@ Genoa) 20, (@ Bari) 316 brls., (@ Hamburg) 4; albumen (@ Hamburg), 15; argols (@ Bari) 23 cks., (@ Naples) 242; bleaching-powder (@ Cologne) 315, (@ Treport) 76; calabar-beans, 7; calcium carbide (@ Rotterdam), 370; castor oil (@ Leghorn) 60, (French) 28, (@ Calcutta) 500 cs.; capsicums (@ W. C. Africa), 336; cardamoms, 71; chaulmoogra oil (@ Calcutta), 10; cinchona (@ Bombay) 18, @ Valparaiso 64; cloves (@ Marseilles), 649; cocaine (@ Flushing), 4 pkgs.; cochineal, 50; cod-liver oil (@ Aalesund) 2, (@ Bergen) 10; coriander (@ Trieste), 60; cream-of-tartar (@ Bordeaux) 224, (@ Barcelona) 12; drugs (@ Marseilles) 74, (@ Leghorn) 82, (@ Havre) 88; essential oils (@ Boulogne) 12, (@ Messina) 66, (@ Palermo) 2, (@ N. Y.) 13 cs.; eucalyptus oil (@ Melbourne) 145, (@ Adelaide) 35; fenugreek-seed (@ Sur), 34; galls (@ Smyrna), 150; gentian (@ Bordeaux), 11; ginger (@ Bombay) 1,669 bgs. 310 cs., (@ Jamaica) 372, (@ W. C. Africa) 534, (@ N. Y.) 556 brls. 50 bgs.; gum arabic (@ Trieste) 37, (@ Alexandria) 109; gum, unenumerated (@ Bombay), 518; honey (@ Chili) 24, (@ Jamaica) 402; insect-powder (@ Trieste), 62; lemon-juice (@ Messina), 20 pps.; lime-juice (@ Jamaica), 24 puns.; manna (@ Palermo) 3, (@ Antwerp) 26; nux vomica (@ Hamburg), 14; olive oil (@ Bordeaux) 229 cs.; opium (@ Genoa) 12, (@ Calcutta) 30, (@ Conspe.) 30, (@ Salonicia) 50; potassium cyanide (@ Paris), 55; quillaia (@ Penco), 138; saffron (@ Valencia), 1; sarsaparilla

(@ New York) 30, (@ Havre) 28, (@ Jamaica) 10; scammonium, 2 cs.; shellac, 2,310; buton ditto, 113; soda-crystals (@ Ghent) 770, (@ Antwerp) 170, (@ Rotterdam) 100; sticklac (@ Rangoon), 20; senna (@ Bombay), 5; sulphur (@ Catania) 3,098 pkgs., (@ Girgenti) 700 tons; tamarinds (E. I.), 18; tartar (@ Bari) 272 cks., (@ Naples) 22; tragacanth (@ Bombay) 20, (@ Bordeaux) 108; vanilla (@ Marseilles), 36; wax, bees (@ Genoa) 11, (@ Leghorn) 2, (@ Chili) 16, (@ Jamaica) 14, (@ Smyrna) 33; wax, carnauba (@ Pernambuco), 155; wine lees (@ Messina), 200.

### Heavy Chemicals.

A steady and increasing home demand, with fair request for export, are the main features of the heavy-chemical market. Contract deliveries are fair, and new business is up to the average. As regards values, there is not much to be said, fluctuations of any particular moment being scarce.

**ALKALI PRODUCE.**—Bleaching-powder, caustic soda, and ammonia alkali are all in steady demand, although actual new business is not very brisk. Prices are steadily maintained all round.

**SULPHATE OF AMMONIA** is easier, but late prices are nominally maintained as stocks are not over heavy. Beckton, 13*l.* 10*s.*; Beckton terms, 13*l.* 7*s.* 6*d.* to 13*l.* 10*s.*; London and Leith, 13*l.* 10*s.*; and Hull, 13*l.* 7*s.* 6*d.*

**BARIUM PRODUCTS.**—Demand still continues on the easy side. A change, however, in this respect is likely to occur soon, and prices are therefore steadily maintained at recent rates. Chloride of barium, best ordinary refined crystals, in casks, 5*l.* 15*s.* to 6*l.* 10*s.* per ton ex stock, and 5*l.* 10*s.* to 6*l.* 5*s.* per ton in bags. Blanc fixe, pure precipitated sulphate of barium in paste form, is now moving better at late lower figures of 5*l.* 15*s.* to 6*l.* 5*s.* per ton, in ordinary casks. Mineral sulphate of barytes, in average consumptive demand at from 40*s.* to 100*s.* per ton, in accordance with quality, quantity, and package. Sulphide of barium, crude 70 to 75 per cent., quiet at 4*l.* to 4*l.* 15*s.* per ton, in usual casks. Hydrate of barytes maintains a steady tone at 13*l.* 10*s.* to 14*l.* per ton, in 6 to 7 cwt. casks. Nitrate of baryta tends somewhat dearer: crystals, 17*l.* to 18*l.* per ton, in casks, f.o.r., and powdered, 17*l.* 5*s.* to 18*l.* 5*s.* per ton.

### Liverpool Drug-market.

*Liverpool, April 22.*

**CASTOR OIL.**—The market has steadied again, and sales of Calcutta good seconds are being effected at 2*½*d. per lb., ex store. Some are asking 2*⅞*d. First-pressure French is selling steadily at 2*½*d., and second-pressure 2*⅜*d.

**ACACIA.**—There is more movement noticeable in this article owing to the stronger reports from the Soudan, and 5 tons and 40 serons have been cleared at 29*s.* per cwt. for good hard amber sorts, although holders are asking more money.

**TURPENTINE.**—Spot is held firmly at 43*s.* to 44*s.* 6*d.* per cwt., though for forward delivery lower prices are now being quoted.

**QUILLAIA-BARK.**—The advance has been more than maintained, sales having been effected in lots of 2 tons and upwards at from 18*l.* to 19*l.* per ton, and now 19*l.* 10*s.* to 20*l.* is being asked.

**CALABAR-BEANS.**—Sales are reported at 7*d.* per lb. Further small arrivals are taking place.

**BEESEWAX.**—Owing to the bareness of stocks, no transactions have taken place, but values are fully maintained at prices ranging from 7*l.* 12*s.* 6*d.* to 8*l.* 10*s.* per cwt. for Chilian, according to quality.

**GINGER, AFRICAN.**—A further upward movement has taken place in this, and sales are reported at prices ranging from 30*s.* to 31*s.* per cwt., and some are talking of 32*s.* 6*d.*

**WAX, CARNAUBA.**—Retail sales of grey have been made at 62*s.* 6*d.* per cwt.

### German Drug-market.

*Hamburg, April 21.*

Business in drugs is very quiet here at present, and only a few articles meet with any interest.

**AGAR-AGAR** is firm, prime being quoted at 320*m.* per 100 kilos. for spot, and higher prices are asked for shipment from abroad.

**CAMPHOR.**—Refined is steady, second-hands quoting 422*m.* per 100 kilos.

**CASCARA SAGRADA** is quiet at 90*m.* per 100 kilos.

**CANTHARIDES** is steady at 540*m.* per 100 kilos.

**ERGOT** is quiet at 260*m.* per 100 kilos.

**GALANGAL** is tending firmer, 35*m.* per 100 kilos. being asked. **IPECACUANHA.**—Cartagena is steady at 9*½**m.*, and Rio is quoted 13*½**m.* per kilo.

**JALAP-ROOT** firm at 107*m.* to 110*m.* per 100 kilos.

**SANTONIN** is firm at 48*m.* to 49*m.* per kilo., according to quality.

**WAX** is very firm. Japanese is held at from 135*m.* to 136*m.* per 100 kilos.; Carnauba is advancing, at from 127*m.* to 190*m.* per 100 kilos., according to quality.



WORMSEED is firm and scarce at 105m. per 100 kilos.

OILS (FIXED).—Cod-liver continues very scarce, holders asking 450m. to 500m. per barrel for best non-congealing oil. Castor is very quiet, first-pressing in barrels for forward delivery being quoted at 41m. per 100 kilos., c.i.f., Hamburg. Linseed for spot delivery is firm, and forward is neglected. Chinese wood is firm at 49m. to 50m. per 100 kilos.

OILS (ESSENTIAL).—Star-anise is unchanged at 10½m. per kilo. Peppermint (HGH) is quoted at 16½m. to 17½m. per lb., and Japanese dementholised at 19m. per kilo.

### Cablegrams.

BERGEN, April 22, 6.5 P.M.:—The total catch of cod for all Norway since the opening of the season now amounts to 30,209,000, against 33,736,000 at the corresponding period of 1902. This has yielded 1,820 barrels of oil, against 16,627 barrels at the same time last year. The Lofoten fishery is still continuing in a small way, and a beginning has been made at Finmarken. The market is very firm, at 500s. per barrel, f.o.b. Bergen, for best Lofoten non-congealing oil.

HAMBURG, April 23: Carnauba wax is rising, oil of peppermint is quiet, and cod-liver oil continues scarce.

NEW YORK, April 23: The drug-market is quiet. Balsam of tolu and balsam Peru both remain easy, at 28c. and \$1 per lb. respectively. Gamboge is lower, at 90c. per lb. for pipe. Beeswax is scarce, at 30c. per lb. for American bleached. Cod-liver oil is firmer, at \$110 per barrel for new non-congealing oil. Japanese wax is strong, at 16c. per lb. Peppermint oil is firmer, at \$3.15 per lb. in bulk. Menthol is also firmer, at \$6.25 per lb.; and buchu is easier, at 24c. per lb. for round leaf.

ACID, CITRIC.—Quiet, at 1s. 1½d. to 1s. 2d. per lb.

The French makers of citric acid, who petitioned some two years ago for the abolition of the import-duty on citrate of lime from Sicily, have at last had their request acceded to.

ACID, PHOSPHORIC.—B.P. quality sp. gr. 1.500 is quoted 7¾d. per lb. net in carboys and 8½d. in W. qts., and syrupy sp. gr. 1.750 at 9¼d. and 9½d. respectively.

ACID, TARTARIC, is firmer at from 1s. to 1s. 0¼d. per lb. for foreign, according to maker, and for June delivery 1s. 0¾d. is quoted. English is firm at 1s. 1d. Raw material continues to advance, and the tendency is still higher.

ACONITE.—German *Napellus* is quoted 35s. per cwt.

AGAR-AGAR is firmer at from 1s. 5½d. to 1s. 6d. per lb. for strips.

ANTIMONY.—Sales of Japanese crude have been made at 12s. per ton.

BENZON.—The bulk of recent arrivals consists of medium Sumatra seconds, and fine remains very scarce. Fair quantities of the medium grades are changing hands privately, and recently there has been a better demand for the United States. The exports from Singapore from January 1 to March 15 were 403 pic. to Great Britain, 756 pic. to the continent of Europe, and 85 pic. to U.S.A.

CALCIUM CARBIDE.—It is stated that the German Carbide Syndicate purposes shortly to reduce the prices of calcium carbide by 30m. to 40m. per 1,000 kilos., or, say, 1s. 6d. to 2s. per cwt.

CASCARA SAGRADA.—Three-year-old bark has been sold in a small way at 50s. spot.

CINCHONA.—At the London auctions on Tuesday the moderate supply of 2,922 packages was offered, and, as will be seen from the subjoined table, the greater part was disposed of. There was a fairly good demand, but some of the parcels, principally East Indian, were held for higher prices. The total amount of quinine in the bark was about 250,000 oz., of which about three-quarters sold. The average unit obtained was 1½d., as compared with 1½d. at the sale in March, and the prices paid for sound bark were as follows: CEYLON: *Succirubra* chips and shavings, 2½d. to 5d.; officialis, original stem chips and shavings, 4½d.; renewed ditto, 3½d.; and root, 5½d. AFRICAN: Fair red broken quill, 5½d. per lb.; bright, part silvery quill, were taken out at 7d. SOUTH AMERICAN: Bolivian cultivated *Calisaya* quill, 6½d. to 8½d.; quillings and chips, 6½d. to 7½d.; soft Colombian, U.U.s., 2d. to 3½d.; and Z.O.s., 2½d., subject, the

bulk being held at a limit at 3½d. to 4d.; 163 bales of *Cuprea* were taken out. EAST INDIAN: Crown, original stem chips, 3½d. to 4½d.; good to fine, 5½d. to 7d.; branch, 3½d. to 6½d.; root, 5½d. to 6½d.; renewed ditto, 3½d. to 5½d.; and fine, 6½d. to 8d. per lb.; *Succirubra*, fine stem chips and shavings, 5½d.; medium, 3½d. to 4d.; and poor, 2d. to 2½d.; branch, 1½d.; and root, 2½d. per lb.

The following table shows the quantity of bark offered and sold:—

	Packages Offered	Packages Sold
East Indian cinchona ... ..	1,302	973
Soft Colombian cinchona ... ..	583	317
Calisaya cinchona ... ..	447	286
Ceylon cinchona ... ..	249	102
Cuprea cinchona ... ..	163	—
Java cinchona ... ..	93	—
African cinchona ... ..	85	85
	2,922	1,763

The following represent the approximate quantities of bark purchased by the principal buyers:—

	Lbs.
American factories ... ..	170,000
Brunswick factory ... ..	71,300
Mannheim and Amsterdam factories ... ..	51,700
Frankfort and Stuttgart factories ... ..	62,500
Imperial factory ... ..	16,200
Paris factory ... ..	750
Druggists, brokers, &c. ... ..	19,300
Total quantity sold ... ..	331,750
Bought in or withdrawn ... ..	140,000
	531,750

After deducting the quantities sold at the above auctions, the London stock will be about 2,000 packages only. Since the sales 104 packages of *Cuprea* bark were sold at 2½d.

The auctions to be held at Amsterdam on May 7 will consist of 4,725 bales and 179 cases, weighing 455,151 kilos. Java bark, containing 22,598 kilos. quinine sulphate. The average percentage for the manufacturing bark is 5.42 per cent., against 5.57 per cent. for the April auction, and an average of 5.51 per cent. for the ten auctions held at Amsterdam in 1902.

The shipments of cinchona from Ceylon for the first quarter of 1903 show a considerable decrease. They are as follows:—

Jan.—March	Lbs.	1903	1902	1901
		63,237	216,222	138,737

COCHINEAL.—Values have been advanced owing to scarcity. Blacks are quoted 1s. 1d. to 1s. 6d., grey blacks 1s. 3d., and silvers 1s. 1d. to 1s. 3d. per lb.

COCOA BUTTER.—The auction to be held at Amsterdams on May 5 will consist of 50 tons Van Houten's, 40 tons Helm, 16 tons De Jong, 5 tons Mignon, and 5 tons Mercuurstaaft, while on the same date in London 70 tons Cadbury's will be offered.

COPPER SULPHATE.—The British Consul at Patras, in his annual report on the trade of the Morea, states that up till now (March 21) the Currant Bank of Greece has only purchased some 650 tons from abroad, of which 200 tons is of British origin at 21l. 10s. c.i.f. Patras. As a rule, from 2,000 to 3,000 tons are required annually by the Bank, but owing to the expense many growers are abstaining from using it unless the season is an unusually damp one. The London market is rather easier at from 20l. 10s. to 21l. 10s. per ton spot.

CORIANDER SEED.—Business in foreign is reported at 10s. 6d. spot.

CREAM OF TARTAR rather firmer and in better demand at 82s. for 98 per cent powder, and 79s. for 95 per cent.; best white crystals being quoted 78s., and powder 80s.

CUSPARIA is rather scarce, holders asking 2s. per lb.

DRAGON'S-BLOOD.—About a ton and a half has arrived, consisting partly of reboiled lump and partly ordinary. The exports from Singapore from January 1 to March 15 amount to 16 piculs only, which were shipped to London.

ERGOT.—Dull of sale. Spanish or Russian is offered at from 1s. 1½d. to 1s. 1¾d., c.i.f., and on the spot 1s. 2d. is quoted for rather weevily.



**ETHER.**—The Berlin spirit ring have advanced their prices of sulphuric ether by 1.50m., and a further advance is expected. The higher rates lately ruling for spirit have also led to an increase in the price of ethers by 3m. per 100 kilos.

**GALLS.**—Chinese are dearer, business having been done, to arrive, at 55s. c.i.f. Persian are neglected and easier at 50s. for blue, 47s. for green, and 47s. 6d. for white.

**GAMBOGE.**—The stock in the public warehouses has been considerably reduced lately, and now stands at 12 packages only, to which may be added a new arrival of 6 packages. The 26 packages bought at the last drug-auction have been shipped to the United States. Exports from Singapore from January 1 to March 15 have been 16 piculs to Great Britain and 15 piculs to U.S.A.

**GENTIAN.**—Holders on the spot have advanced their quotations 1s. 6d. to 2s., and nothing is now obtainable under 20s. to 20s. 6d. spot, the latter price being for fine root. For shipment, 19s. 6d. to 20s., c.i.f., is quoted. There is a fair demand.

**INSECT-FLOWERS.**—A Trieste report, dated April 15, states that the arrivals from Dalmatia during March amounted to 480 cwt., and the sales reached 540 cwt. As the season of consumption is at hand a further decline in prices is not expected. In consequence of the famine in Dalmatia, several owners will be compelled to realise their stocks at a loss. The new crop is due in about two months, but nothing trustworthy can be written in regard to it. Stocks are rather heavy, as will be seen from the following figures:—

	Season 1902-3	Season 1901-2	Season 1900-01
	Cwt.	Cwt.	Cwt.
Stock on June 1 (beginning of new season) ...	2,696	2,522	2,916
Imports from June to March ...	8,686	8,260	9,738
Sales from June to March ...	7,308	8,386	9,106
Stock on April 1 ...	4,074	2,486	3,548

The following are the current quotations c. and f.: Closed flowers, 10s. to 120s.; half-closed, 72s. to 94s.; and "open" flowers, 66s. to 77s. per cwt.

**IPECACUANHA.**—There has been an arrival of 42 bales Johore ipecac from Singapore, which will be offered with analysis at the auctions next week; 24 bales of Rio have also arrived, but no Cartagena. There has again been a fair demand, Rio selling at 5s. 2d. for fair, and selected at 5s. 3d. to 5s. 4d., and importers have now advanced their price to 5s. 6d. Holders of cultivated are now asking 5s. 6d., after selling some half-a-dozen bales at a shade under this figure. Cartagena is firmer again, at 4s. 4d. for ordinary to 4s. 6d. for good stout.

**JUNIPER-BERRIES.**—Prices from Italy come firm, large selected berries being quoted 16s., first sorts sifted and cleaned 11s. 6d., sorts 9s. 9d., and grinding quality 7s. per cwt., c.i.f. London.

**MENTHOL.**—Steady and unaltered, with a small business at 22s., spot, for Kobayashi brand.

**MORPHINE** remains firm on the basis of 4s. 2d. to 4s. 3d. per oz. for hydrochloride powder, and 2d. more for crystals.

**MYRRH.**—There have been no arrivals on the Trieste market for many months, and the stock there is extremely small. The "sorts" offered are of poor quality, and prices asked above market value; 21 packages have arrived on the London market. There has been a fair demand in London recently, fair to good picked gum selling at from 5l. 15s. to 6l. Siftings are scarce and wanted.

**OIL, CASTOR.**—Finest medicinal Italian is quoted at 31s. 6d. per cwt. net, in cases, c.i.f. London. Hull make is quoted 20l. 15s. for firsts, and 18l. 10s. per ton for seconds, for prompt delivery or any position up to the end of the year, ex wharf London.

**OIL, CITRONELLA.**—The exports from Ceylon from January 1 to March 30 were as follows:—

	1903	1902	1901	1900
Lbs.	194,884	314,529	270,398	439,056

**OIL, COD-LIVER.**—The London market closes firmer, but in view of the scarcity of oil and the high prices the business done is of small dimensions. The few agents who have anything to offer quote from 475s. up to 500s., c.i.f., for non-congealing Lofoten oil, and in one instance a bid of 490s. is said to have been refused for finest. On the spot new oil has been selling in twos and threes at from 475s. to 480s. per barrel, and for immediate shipment 480s. has been paid for a few barrels. Last season's oil is obtainable from second hands at 470s. on the spot, and in Liverpool a small sale is reported at 450s. for old oil. Under date of March 18, our Bergen correspondent writes that the market is very strong at 480s. per barrel, f.o.b. Bergen, for new non-congealing Lofoten oil. The declining tendency as regards the Lofoten fishing noted last week continues, and at Finmarken fishing has commenced, but only in a small way, as bait is lacking in most places. The quality of the fish and liver in this district is also poor. The exports from Bergen to date amount to 758 barrels, against 3,350 barrels at the corresponding period of last year.

**OIL, OLIVE.**—In his report on the trade of the Morea for 1902 the British Consul at Patras states that the olive-tree still flourishes extensively in Greece, in spite of the ruthless cutting down of the groves which took place twenty years ago to make room for currant vineyards. The local consumption for domestic purposes is so great, however, that there is practically nothing left for export. A refinery established in Patras three years ago produces eating oil, which in colour and flavour, the Consul says, is fully equal to the best Lucca. Small consignments to London have realised 60l. per ton.

**OIL, PEPPERMINT.**—There has been a better inquiry during the past week or ten days, both from at home and abroad. It is evident that consumers, who have been working their stocks down to the lowest possible point, are gradually coming on the market again for small lots. American HGH is quoted at 14s. 9d. per lb., spot, and a fairly large quantity of *Todd's* brand has been sold at 17s., net. Japanese dementholised is steady at from 8s. to 8s. 6d., according to quantity and brand. Sales of guaranteed pure so-called Wayne County have been made at 14s., net., and W.C.O.P. is obtainable in any quantity at 10s. to 10s. 6d. Genuine English is worth about 32s. per lb.

The following advice has been received by the London agents of the A. M. Todd Company, Kalamazoo, Michigan:—A severe snowstorm visited the Michigan State during the early part of this month, the like of which was unprecedented at this time of the year. In some of the peppermint-producing districts snow fell to the depth of 12 inches, and as the weather had previously been warm, the roots have sprouted. Consequently this freezing has done considerable injury, although we are not yet able to estimate the precise amount of damage.

**OPIMUM.**—The London market is very quiet, with sales of a few cases of Malatia seconds at 8s., Tokat seconds at 10s., and Persian at 9s. 3d. per lb., spot.

**CONSTANTINOPLE, April 18.**—The opium-market continues quiet with no visible signs of a decline in the near future. The weather has set in warm, and sowings, in consequence, are progressing favourably. The total output, including Salonica districts, cannot, we think, exceed 5,000 to 6,000 cases. The week's sales amount to 9 cases "Druggists," at 7s. 5d. to 7s. 7d., and 5 cases "Soft shipping," at 9s. to 9s. 10d. per lb., f.o.b.

**ORRIS.**—The Italian markets remain very dull and depressed, and as the principal distillers and users in England, Germany, and France appear to be fully stocked, they are not likely to be on the markets for some months to come. The current quotations are:—Large white selected, 23s. 6d.; small white picked, 20s. 6d.; first sorts, 20s.; third sorts, 18s. 3d. Finest powder from Florentine root, 55s.; prime ditto, 47s. 6d.; powder for sachets, 41s. 6d.; grains, 41s. 6d.; and raspings for distillers, 23s. 9d. per cwt., c.i.f., London.

**OTTO OF ROSE.**—In view of the trouble in the Balkans it is probable that higher prices will prevail shortly, but as yet nothing definitely can be stated. Finest otto is quoted 21s. per T. oz. on the spot.

**POTASSIUM CYANIDE** is rather easier at from 8½d. to 8¾d. per lb. for contract quantities.

**QUININE.**—Towards the close of last week some forced sales of about 50,000 oz. were made at slightly under



market value, but subsequently the market became steadier, a good business being done at 11½d. spot, and August at 11¾d. for the usual German brands of sulphate. This week the market has been lifeless, a few small sales having been made at 11¾d., with buyers on Wednesday at 11½d., but to-day the market is firmer again at 11¾d. For new German ls. has been paid in small lots.

**SAFFRON.**—The present outlook in Spain is by no means satisfactory for the growing crop, owing to unfavourable weather-conditions. The market still tends in the direction of higher prices, and from first-hands good B.P. quality is obtainable at 27s. per lb., net.

**SARSAPARILLA.**—The arrivals consist of 65 bales grey Jamaica, 6 of Lima-Jamaica, and 6 of native red; they will be offered next week. There has been a fair inquiry, Lima-Jamaica being quoted 1s. 2d., and grey Jamaica 1s. 3d. to 1s. 4d., per lb.

**SEEDLAC.**—In auction 70 bags Madras native flaky small sold at 105s., and block 97s.

**SEEDS.**—Russian *Anise* quiet, at 15s. per cwt. *Canary-seed* slow, at 54s. per quarter for Turkish. *Coriander* firm, at 8s. 6d. per cwt. for Morocco. *Cumin* in better demand, at 18s. per cwt. for Mogador. Dutch *Corianders* steady, at 21s. to 21s. 6d. per cwt. *Fenugreek* neglected. *Linseed* is quoted at 48s. to 50s. per quarter for fine quality. The following are offers from the Trieste market:—Italian *aniseed*, 28s. 6d. per cwt., c. and f. *Canary*, 17s. 6d. to 18s. in lots of 10 tons. *Levant fennel* is practically sold out at 16s. 6d. to 17s. 6d., f.o.b. Trieste brown *mustard*, 19s. 6d.; *Levantine* is exhausted. *Starvacre* is lower, at 24s. 6d. to 25s., c. and f.

**SENEGA.**—Agents continue to offer at 3s. 8d., c.i.f., but business is confined to small spot lots at 3s. 6d., net.

**SHELLAC.**—The market last week closed rather lower. Button lac however continued in request, and sales were made at higher prices. For arrival TN second Orange was sold at 118s. to 118s. 6d. for March-April shipment, and 115s., c.i.f., for June-August; Garnet (GAL) was sold at 104s., c.i.f., for May-June steamer, and No. 1 Buttons at 135s. to 140s., and No. 2 at 122s. 6d., c.i.f., for May-July shipment. Futures closed lower. On Monday the market opened quietly with a small business in TN orange at 119s. to 121s., cash terms, and since then further sales have been made at 120s. 6d., spot, and for arrival 119s. has been paid for TN for June shipment. Futures have had a downward tendency, with a fair business, but close 1s. to 2s. dearer. At auction on Tuesday insignificant supplies were offered. Fifty chests sold "without reserve" at 118s. to 119s. for good reddish free second Orange; forty chests of common resinous thirds sold at 85s. to 91s., also without reserve.

**SODA NITRATE** is dearer at 9s. 6d. per cwt. for refined, and 9s. 4½d. for ordinary.

**SPERMACE.**—American refined in quantity is offered at 11¼d. per lb., c.i.f.

**SPICES.**—At auction on Wednesday the large supply of 1,134 barrels Jamaica *Ginger* met an active demand at full valuations to 1s. to 2s. per cwt. advance, a few lots of very fine bold pale bringing extreme rates—viz., 57s. 6d. to 58s. 6d.; bold sold at 51s. 6d. to 52s. 6d., medium dullish to medium washed 43s. 6d. to 48s. 6d., ordinary to good ordinary 42s. to 43s., common and ordinary lean 40s. 6d. to 41s. 6d. *Cochin* was in excessive supply, a small quantity only being sold. Of 1,345 bags offered. 85 sold, including fine bright Calicut at 40s., brown tips 37s. 6d., good bright cuttings 37s.; good washed rough bought in at 39s.; 115 cases *Cochin* were also bought in, and 66 bags slightly mouldy Japanese sold at 26s., being easier. Privately Japanese has been sold at 25s. 3d., c.i.f., for January-March shipment, being firm; and washed rough *Cochin* has changed hands at 30s., c.i.f., for April-May shipment, being dearer. Zanzibar *Cloves* in auction (169 bales) were bought in at 3¾d. to 4d.; privately a small business has been done at 3¾d., spot, for fair. *Chillies* sold steadily, good bright East African realising 33s. to 33s. 6d. for fair to good reddish and 32s. for dark. *Pimento* quiet, fair greyish selling in auction at 2¾d. *Cinnamon-chips*, 110 bags sold at 2¼d. for fair. *Cassia-lignea*, fair selected (40 cases) bought in at 47s.; and of 200 bags broken, 50 sold, at 39s. for ordinary, fine being bought in at 45s. West Indian *Mace*

(22 packages) sold at easier rates, fair to good pale being taken at 2s. 1d. to 2s. 2d., fair 2s., ordinary red 1s. 10d. to 1s. 11d. Wild Bombay was bought in. *Nutmegs* ¾d. to 1d. cheaper, West Indian selling to the extent of about 100 packages. White *Pepper* was barely steady at auction, 138 bags Singapore selling "without reserve" at 9¾d. for fair; black Singapore was bought in at 6d. for fair; fine Wynaad sold at 6¼d. per lb.; fair greyish Aleppy was bought in at 5¾d. Privately business has been done in white Singapore at 9¾d., and fair Penang at 9d.; while black has been selling at 5½d. for fair.

**TAMARINDS.**—At auction 794 packages of new-crop Antigua, and 20 packages from St. Kitts were offered. The quality, however, was very mixed, the bulk being pale dry and stony. From 9s. 6d. to 10s. 6d. was asked, and only 10 barrels sold publicly at 10s. 6d. in bond. Further small sales were afterwards made privately.

**TRAGACANTH.**—The new arrivals are meeting with a good demand for all qualities at full prices. Firsts are quoted 14l. 10s. to 15l. 10s.; seconds, 13l. to 13l. 15s.; thirds, 11l. 10s. to 12l. 5s.; and fourths, 7l. 15s. to 11l. per cwt.

**VANILLIN.**—Swiss make is quoted 17s. per lb.

### The Nitrate-of-soda Combination.

The producers of nitrate of soda in Chili have entered into the third year of their five-year compact, which expires on April 1, 1905. Since its organisation the combination has by energetic propaganda greatly increased the consumption of nitrate of soda, and by a systematic adjustment of production to the export-demand it has succeeded in establishing high prices, that have yielded substantial dividends to those engaged in the industry. In beginning its third year, however, the combination is confronted with difficulties which seem likely to create dissension among its members. Foremost is the matter of readjusting the quota of production allowed to the respective members, in order to admit the new oficinas that have started, and the older works that have been rehabilitated since the organisation of the combination. Simultaneously it will be necessary to consider the lower prices that are now being obtained for nitrate of soda, which on a curtailed individual allotment must yield smaller profits. On the other hand, much will depend on the recovery in the beet-sugar industry in Europe, which is the largest consumer of nitrate in the world. The demand in the United States is increasing, but as it constitutes only about 18 per cent. of the world's consumption, it can have comparatively little influence on the policy of the combination. It will also be interesting to watch the development of the Californian nitrate-beds, which are now being diligently prospected. Summed up, it looks as if the Chilean producers will experience more difficulties in the closing years of their compact than they have heretofore encountered.

**FOURPENCE OFF INCOME-TAX.**—Tremendous cheering (writes our parliamentary representative) greeted the announcement by the Chancellor of the Exchequer on Thursday that he had decided to take 4d. off the Income-tax. The important statement was also made that a Select Committee of the House will be appointed to inquire into the operation of the tax, the equity of the burden, the machinery and the evasions of the tax. The sugar-duty remains, the only other remission being in connection with the so-called tax on bread. The corn-tax is abolished altogether.

**MESSRS. CARR & CO.**, dispensing chemists, announce their intention of shortly relinquishing the business at 171 High Holborn, W.C.

**THE E.F.A. BOOK** which is to be published by Messrs. Elliman; Sons & Co., of Slough, will do for men and women what the R.E.P. book has done for horses. Chemists should look out for it.

**NOT A DOCTOR.**—Frau Helene Freudenheim-Block, who passed her examination as a dentist in Zürich and settled down to practise in Berlin, had on her door-plate: "Authorised Doctor of Dentistry in Switzerland." The inscription was objected to by the police on the ground that in Germany she could not call herself "doctor" without first passing the doctor's examination. Thereupon the plate was changed and read as follows: "Authorised in Switzerland as Doctor of Dentistry." After the case had been tried in several courts and decided in the lady's favour once, the Public Prosecutor was victorious in the final appeal, and Frau Block was ordered to abandon the title of "Doctor" altogether.





**TO CORRESPONDENTS.**—Please write clearly and concisely on one side of the paper only. All communications should be accompanied by the names and addresses of the writers. If queries are submitted, each should be written on a separate piece of paper. We do not reply to queries by post, and can only answer on subjects of general interest.

#### A London Testing-house.

SIR,—As I see that considerable attention is being drawn to a proposed testing-house for textiles, chemicals, oils, produce, &c., by the London Chamber of Commerce, and that a notice has appeared in the leading evening papers, I think it well to send you a copy of a letter that I have addressed to the Secretary, which I hope will be representative of the views of the majority of those that I have the honour to represent as Chairman of the Chemical Section of that Chamber.

Faithfully yours,

48 Southwark Street, S.E., JOHN C. UMNEY.  
April 20.

[The letter is in the following terms:—

I have not hitherto replied to your circular letter regarding the formation of a testing-house for London for textiles, chemicals, oils, produce, &c. I cannot help thinking that the establishment of such a testing-house, at any rate for oils, chemicals, products, &c., would be a disadvantage to the individual trader who has made a study of the science of his business. It appears to me that the establishing of such a testing-house would have the effect of levelling businesses and of imparting to the houses with less scientific knowledge, information which might have been gained by the more scientific at very considerable expense and labour. Moreover, I cannot help thinking that the individual analytical and consulting chemist would be much prejudiced by such an action. I can conceive that in the case of experiments of textile and such material requiring machinery for testing, and where the testing was in accordance with certain well-defined lines, there would be no objection; but I feel sure that I shall be voicing the opinion of the majority of the members of the Drug Sub-section, and probably other sub-sections of the Chemical Section, in stating that I am distinctly opposed to such establishment for the examination of chemicals, essential and fixed oils, &c.]

#### Citronella Oil.

SIR,—Messrs. Hayley & Co.'s letter in your last week's issue was read with interest, as it affords a clue to the source of the adulterant recently found in such enormous quantities of citronella oil. In our notes on the subject (*vide ante*, pages 88 and 408) we pointed out that the sophisticated agent differed from that employed some years back—viz., American petroleum or kerosene—in the absence of odour and fluorescence characteristic of that article. We found it impossible without a very large supply of oil to separate any definite compound which would enable us to say positively what the adulterant was. Since many of the numerous constituents of resin spirit are identical with those present in Russian petroleum (notably reduced benzenes and naphthenes), it is in accordance with our results that a petroleum distillate may have been largely used for this purpose, and indeed this possibility was admitted in our last paper, wherein we showed the similarity in character of the two substances. It may be mentioned, however, that it has come to our knowledge, subsequent to the publication of our notes, that enormous quantities of resin spirit have been exported from this country. We do not agree that it has been for some time an open secret that gross adulteration has been practised, nor does it appear either fair or rational to lay the blame for dishonesty in Ceylon at the door of the honest importer here. The experience of Messrs. Hayley & Co. coincides with our own as to the unreliability of Schimmel's test when used alone. We find also that with different citronella oils different proportions of resin spirit must be added to produce the same effect on the solubility, one class of oil passing the test with as much as 20 per cent. addition, whilst another class which would not exclude Winter's brand will not stand any addition of resin spirit without failing to pass Schimmel's test. The somewhat

abnormal characters of Winter's oil were noted in a paper by Messrs. Umney and Swinton (*P.J.*, August 14, 1897, page 139), in which the following paragraph was included:—

We have addressed letters to the two firms mentioned [*i.e.*, Messrs. Fisher and Messrs. Winter & Son] on the subject of the method of distillation adopted; but although several months have elapsed, up to the present time have not received replies. We learn, however, from two independent sources that the oil is not in the ordinary way distilled by steam, and that practically no differences exist in the grasses used for distillation. It is distilled in all cases from freshly-cut grass, or grass cut within three days, as it is found that if the grass be left for more than the fourth day the yield of oil is not great enough to cover the distillation expenses.

Further light is now thrown on this question by Messrs. Hayley's letter, in which it is stated that the grass used in the preparation of Winter's oil is not identical with that cultivated by the natives. No particulars are given, however, as to the method of distillation or as to whether a portion of the terpenes is removed in the course of preparation. It was on account of the undoubted purity of this oil that our minimum standard for the refractive index of the first 10 per cent. distillate was fixed as low as 1.4570, the next lowest being 1.4590, out of the six samples examined in connection with our notes.

Messrs. Hayley & Co. state that they have adopted a practical test which gives satisfactory results without recourse to a complete analysis at the hands of an expert. If this test could be used to replace Schimmel's test, admitting all pure oil and rejecting adulterated ones, surely it would be in their own interests, and in the interests of commerce, to publish it with a view to stopping the greatly increased adulteration of the last few months. At the same time the quality of pure oils for valuation purposes must necessarily be determined by some quantitative analytical method, and the process recommended by Mr. J. C. Umney—viz., estimation of the total acetylisable constituents (*C. & D.*, 1896, Vol. 48, page 356)—while not showing the different proportions of geraniol and citronellal, in our opinion suffices, the minimum suggested by Mr. Umney being the equivalent of 60 per cent. of geraniol. It should, of course, be understood that the usual limits for sp. gr. and optical rotation must be included with the standards suggested in our last paper. We mention this, inasmuch as a heavy oil has recently been met with which has a sp. gr. of 0.935, a figure which at once condemns the oil as impure.

Yours truly,

ERNEST J. PARRY.  
C. T. BENNETT.

London, S.E., April 21.

#### Is it Worth While?

SIR,—“Confidence and Conciliation” has reviewed the relative positions of manufacturers and retailers in connection with the so-called “substitution” question with exceptional fairness to the former; but, though he is evidently well-informed of facts, he has been led to wrong conclusions. He advocates the abolition of substitution, and advises the adoption of a resolution in favour of that proposal by some large and representative gathering of chemists. “C. and C.” does not allude to fraudulent substitution, nor will I.

The impossibility of getting an exact definition of the term and of applying any definition to widely differing circumstances makes the proposal unworkable, even if the pledge could be obtained from a sufficient number. There is scarcely a chemist in the country who has not given special attention to perfecting the formulae of some of his own preparations of toilet or medicinal articles. The respective proprietors of these have confidence in their preparations, and through them they have gained the confidence of their customers. It would be more than unreasonable to expect men who have specialised their tooth-washes, skin-creams, liver-pills, cough-syrups, headache-powders, or what not, to see them supplanted by newer and more extensively advertised articles without making an effort to retain their customers. A further result of “C. and C.’s” proposal, if it were adopted, would be that some amongst the manufacturers would take advantage of the chemists’ tied hands, and we would soon be expected to hand over packages of zinc ointment, comp. rhubarb pills, &c., bearing the name of “So-and-So” on the label, which would, of course, be a guarantee of purity.



All the high-falutin talk about substitution is merely a part of the advertising-business. Manufacturers are aiming at monopolies, and in the march to greater wealth would trample on and crush all who stand in their way. It was publicly stated by a chemist in business recently that one-half of his returns was from the sale of packed goods at a ridiculously low rate of profit. The proportion, whatever it may average, is not becoming less. Further developments on present lines, seeing that profits on proprietaries do not pay working-expenses, much less household-expenses, must have serious results to many unless a way out can be found. That is what we are groping for, and will, no doubt, eventually find; but it will have to be sought for.

If your correspondent is correctly informed, the proprietors of the most popular articles are anxious to put an end to the present unsound conditions; then we can see daylight. The methods adopted by many of these of late years have not endeared them to us; at the same time, we are in business for business, and will be glad to see any indication of friendly disposition. I was surprised to see it stated that the methods of the P.A.T.A. have not always been commendable. Surely it is to be expected that in an association numbering a few thousand members there would be some enthusiasts who held extreme views, but where has the Executive offended? If a conciliatory spirit would adjust differences by which nobody profits, it would not be wanting.

Many pharmaceutical veterans have been preaching for years of the evils that must follow the relinquishment of practical pharmacy by practising pharmacists. It is true that some chemists have, to save time and labour, had preparations of known composition packed for them by one or other of the wholesale firms, but not, as far as I know, in colourable imitation form; and this innocent fact has been unfairly used against the whole pharmaceutical body with great ingenuity. It is not too late to recover lost ground and to educate the medical profession and the public back to a preference for freshly prepared pharmaceutical products rather than for the factory-made articles now so much used.

St. Leonards-on-Sea, April 20.

JOHN SMITH.

SIR,—Your correspondent who signs himself "Confidence and Conciliation" heads his letter with the query, "Is it worth while?" but although I have studied his letter carefully, reading it through several times, I am unable to get a clear idea of what the "it" refers to. Does he mean, Is it worth while to push one's own preparations in the place of patents which are sold at cost-price? or does he mean, Is it worth while to offer a pledge to certain proprietors that we will not mention our own preparations when theirs are asked for if they will give us a reasonable profit?

Whatever his query means, his letter appears to me to contain a number of statements which are open to friendly challenge. And while every retail chemist will agree with him as to the desirability of finding a *modus vivendi*, and of putting an end, if possible, to the open antagonism existing at present between certain advertisers and those who have to handle the advertised goods, I think a very large number of your readers will take exception to the implication that the fault, or *casus belli*, is all of our own making, and that the antagonism would cease immediately if we would cease to praise our own goods to our own customers.

"C. and C." makes two statements with regard to the big advertisers and proprietors which contradict each other. He says they "are all of them anxious to see the present state of things put an end to; they seek peace." When, where, or by what means they seek it he omits to say. But he also says they "obstinately decline to interfere with what they call free trade." How does "C. and C." reconcile these two statements as to the position of the big proprietors? "They seek peace—but they cannot ensue it," because, say they, or says "C. and C.," if they did protect the prices, and give the retailer a living profit, he would run down their goods all the more, and "substitute all the harder." Is this likely? Is it common-sense? Has "C. and C." forgotten the emphatic declaration of a large representative meeting held last November to the effect "that in the opinion of this Conference when P.A.T.A. articles are asked for no attempt is made by the retailers to discourage the sale of such articles"? I do not say that the protected articles will have no competition. If Blank's Blood Balm is protected, and bears me a reasonable profit,

that is no reason why I should cease to make and recommend my own blood-purifier. I am only doing for myself what Blank is doing for himself. But I do honestly declare that when Blank's balm is asked for, if Blank's balm bore me a protected 20 per cent. profit, I should not waste my time and labour in running it down or trying to sell my own in its place. And the P.A.T.A. Convention, at which I was present, emphatically and enthusiastically declared that such was the practice of the retail trade all over the country. That meeting did, in point of fact, say to these big advertisers, "We, delegates from the retailers of the United Kingdom, ask you to ensure us a reasonable profit, and we in return will protect your articles as far as possible from unfair substitution." What has been the reply of the proprietors? Virtually it has been a polite expression of regret that their goods are cut and sold at cost, but as for attempting to remedy the evil "we are not going to interfere." What "C. and C." suggests as almost certain to cure the present trouble has been done—was done last November—and the result has been that certain firms of big sellers or big advertisers have accepted the promise and protected their articles, and so far as those articles are concerned I am convinced substitution is at an end. Perhaps if "C. and C." waits just a little longer he will find that some more big advertisers are going to end substitution in the same way. At any rate, the overture has been already made by the retail trade, and the next step towards peace must come from the proprietors, and not from us.

This letter would be too long, Sir, for your space were I to answer the whole of "C. and C.'s" letter as I should like to. I can assure him, as one who has had considerable experience in big cutting stores, that he is utterly wrong when he calls the company cutter the friend of the proprietor. There is not a single advertised article of medicine, from coloured pills to bilious beans, but what has its "substitute" on the counter of the company store. Even the *Daily Mail*, in its tirade against shopkeepers in general and chemists in particular, has honesty enough to confess that the biggest stores are the biggest substitutors. And I can tell "C. and C." from experience that no private chemist does as much "talking down" of the advertised article as is expected and demanded from the store assistant.

I must touch one more point in conclusion. It is this: Who started the war? Which came first, cutting or substitution? Had the big proprietors set their faces against extreme cutting from the first and insisted in their own interests on securing to us retailers a fair profit, they would never have had the present antagonism to face. "C. and C." puts the boot on the wrong foot. The substitutor is the creature of circumstances over which the proprietor has sole control. The whole solution of the difficulty is in the makers' hands. Let the man with a proprietary article to sell offer the retailer a fair profit, and let him at the same time make that profit conditional on a signed agreement that the profit-taker shall protect the sale-maker, and the whole difficulty ceases at once.

F. E. BARKIS.

SIR,—It is worth while to conciliate the ignorant, but bad policy to attempt to conciliate "astute and experienced combatants." The writer of the letter in last week's issue of the *C. & D.* dealing with the patent-medicine question puts words into the mouths of the "astute and experienced combatants" that I feel sure they will not endorse. The P.A.T.A., backed up by the trade, is the only "conciliation" likely to serve the chemist, and all that is required to secure the few manufacturers and manufacturers' "agents" still remaining outside is stronger support of the P.A.T.A. by the trade. Let every town supply its fair proportion of members, and the P.A.T.A. will then commend itself to those manufacturers who alone are by your correspondent considered astute, &c.

I read a tale in one of the magazines a little while ago. It related the experiences of an Englishman who went on the Continent determined not to give tips. The result was disastrous to the Englishman, and the waitress, in giving her views, said, "My employer pays me for regular work and attendance on the visitors—this I do; but to those who give gratuities I hasten—I smile. I am glad to attend and do all I am able to make their stay pleasant. The guest who does not give gratuities must wait." Just so soon as these "astute," &c., gentlemen realise that the P.A.T.A. has the



whole-hearted support of the trade they will take care to secure the "smiles." The tip the waitress required dominates all, and the bigger the profit the manufacturers give, the greater will be the favour shown.

Who thinks now of offering any chlorodyne except Collis Browne's? This costs 8s. 2d. and retails at 1s. This is the profit that annihilates all opposition. There are the "astute" people. Let the manufacturers who remain outside copy them, and they will kill all "substitution," as they term it. But what the chemist never will extend his favours to is the nostrum of any sort that costs the retailer 10d. and sells at 11½d. or 1s. This is the "margin" the chemist will treat as the Englishman of the tale was treated on the Continent, and with like results. There is no need of any conference. Support the P.A.T.A., and all the red herrings the manufacturers draw across the path will disappear. The public will just as readily pay 1s., or even 2s. 6d., for their pet nostrum as 9d. or 1s. 10d. The public who purchase the advertised remedies are the same public who spend their 1s. and 2s. 6d. on the theatre, football-field, &c. They are not choked off by the few extra coppers.

Yours,

ORGANISE. (19/35.)

SIR,—I am very sorry for your correspondent "Confidence and Conciliation." He is apparently in a bad way. It is a pity, however, that he did not affix his name, so that we could be sure he is not one of the "great advertisers" in disguise. Just when success is beginning to attend our efforts, which is evident by the tactics these humbugs are now adopting—*i.e.*, bribing editors of London daily papers—he suggests "throwing up the sponge" and joining hands with the frauds. He says he has tried to do otherwise, but failed. Has he tried, by improving his shop and making his personality felt, and also by putting up really good preparations in an attractive way and at a reasonable price, to gain the confidence of his customers? I have never seen this method of business fail to put a "brake" on patents.

Yours, &c.,

FIGHT TO DEATH. (19/24.)

[Other letters on this subject are reserved until our next issue.—EDITOR.]

#### Mr. Paterson's Candidature.

SIR,—In your last issue there was a letter from Mr. Russell, Greenock, making pointed allusion to my candidature in the following terms:

Mr. Paterson, Aberdeen, cannot fairly be considered representative of Scottish pharmacy; that he is not and never has been engaged in regular retail pharmacy; and that his business now is really and truly that of a manure-merchant.

What in this is matter of opinion I leave to be dealt with by those responsible for bringing me forward, and will only touch on what is matter of fact. I may inform Mr. Russell that I served a regular apprenticeship to the business in all its branches, including dispensing, having (as stated in your issue last week) had charge of a dispensary for several years; that I have all my life been in close touch with the retail trade; that in one branch of my business, not connected with the manure-trade, I have long had, and now have, customers members of the trade; many of them also members of the Society, on both sides of the border, among whom I regularly travel, and am thoroughly conversant, from personal contact with the members, both in towns and in the country districts, with their difficulties, needs, and wishes.

I have always understood that membership of the Society was the test of eligibility for election to the Council, and never heard of any rule, written or unwritten, making it a *sine qua non* that only those engaged in retail pharmacy, and remaining in it, should be eligible for a seat on the Council.

Turning now to the opening sentence of Mr. Russell's letter, I must confess it is somewhat of an enigma to me. It reads:

It would be highly gratifying to many in the North could three members of the Council be claimed as representative Scottish chemists, and, apparently, that in itself would be favourably regarded by chemists generally throughout England as well as in Scotland.

Well, if this be so gratifying to those North, and so favourably received by members generally, one naturally

wonders why Mr. Russell's friends have put forth such strong efforts to confine the nominations from Scotland to their two nominees. I have always deprecated being put forward for the reason that Scotland is entitled to two or any particular number of representatives, preferring, so long as the election to the Council is on its present footing, to trust the members to put me there if satisfied with my fitness for the work. If Scotland, however, were to be territorially treated, then some method would require to be formulated for giving the whole members in Scotland a voice in the selection of those who are to be put forward as their candidates at an election. Hitherto there has been no attempt to attain this, but there has been, in this election, more than one effort made by a caucus, with no representative character, to select candidates, and as far as possible make them pose as the selected of Scotland. Having made their choice, their next step is to try to coerce all others to fall in with it. The Aberdeen Association on both occasions declined to be coerced. I think it only fair to them and justice to myself to make clear my position in this matter, and show to members of the Society how the thing has been manipulated.

In the end of January I had a communication from a gentleman in Edinburgh, stating that he did not know whether it was my intention to stand again for election on the Council, but saying it was only fair that I should know what was being done, and enclosing a copy of a circular he was sending out, by instructions of a meeting of several members of the Executive and examiners—an informal meeting—held recently after a General Purposes Committee meeting. The circular was addressed to local secretaries, inviting them to give their opinion of a gentleman named as a second representative for Scotland, the intention being, if the replies were favourable, to present a request to that gentleman to stand, assuring him that he had the members for Scotland at his back. I replied that regret having been expressed from many quarters that I had not been nominated last year, and having been asked if I would stand if nominated, I had said I would, and added:

Perhaps you will allow me now to say that I do not think it was a happy inspiration which came to your caucus—*viz.*, to attempt to turn the Local Secretaries, who are officials of the Society, in their official capacity into electioneering agents for a particular candidate.

I was told I had misunderstood the circular, and was favoured with a paraphrase of its meaning, which a detailed examination of it would not bear out. What became of the requisition has never been made public, so I cannot tell whether it was presented or not. Possibly the West was too strong for the East of Scotland; at any rate, the net result of this caucus meeting is seen in the running of Mr. Currie along with Mr. Storrar.

Of course, they are quite entitled to run any candidate they choose and in whatever combinations they may select, but they have no right to be considered as selected by or for Scotland on the basis indicated.

Aberdeen, April 20.

JAMES PATERSON.

SIR,—Having adopted Mr. Paterson as a candidate for the Council, Mr. Russell's criticism of that candidature would seem to reflect upon us, as an association, for having made an unsuitable choice. We were quite aware that such an argument was being used against him by some in the supposed interest of their own nominees. We were able to appraise this at its true value, and that will be seen to be not very much when we state that those who are most keenly urging it against Mr. Paterson's candidature, only some two years ago, when it seemed to suit their purpose, put forward and strongly supported one who had ceased to have any connection with the trade. We do not require to go very far back in the history of the Council to find men elected who had ceased to have any connection with the trade, but yet whose wide knowledge and experience of matters pharmaceutical were of value in the work of the Council.

You hear no word of this in the North, where the work Mr. Paterson has done in the interests of pharmacy is well known and appreciated. His most ardent supporters are to be found among the younger members of the trade, who have felt the advantage which such work had brought within their reach. There are very few men who have a



wider knowledge of the retail trade in all its ramifications. He is constantly in touch with it, both in city and county, England and Scotland. His connection with the manure-trade, notwithstanding Mr. Russell's sneer at it, is at the present time a distinct advantage and a very considerable point in favour of his candidature. Is it not a manure-merchant who has been the mainspring of the agitation for relaxing the poison regulations? Who, then, more competent to checkmate his endeavours than one conversant with the outs and ins of that business? As to Mr. Paterson's fitness to represent Scottish pharmacy, the following extract from our late Secretary's letter sent in response to a communication from Glasgow on behalf of Messrs. Storrar and Currie's committee may suffice for answer:

You ask in respect of a candidate, "Will he make a good representative? and is he a suitable candidate?" The answer to these questions will be largely determined by the nature of the work which will lie to the hand of anyone elected. At the present time the work to be done is to oppose the recommendations of the Poisons Committee, promote pharmaceutical legislation, and put our educational system on a proper basis. For such work Mr. Paterson has had a large and varied experience both in drafting Bills, meeting opposition to them, and carrying them through Parliament. His paper on poison legislation, as it seems to us, is the only one of the many which sets the whole thing in a clear light and shows the lines on which the opposition could be most effectively met. His codification of the pharmacy legislation was very highly spoken of, and showed his ability to deal with such things, and his experience of secondary and technical education is considerable and rather unique of its kind.

We trust this will satisfy any who may be in doubt that in Mr. Paterson we have one who will prove not only a fitting representative of Scottish but of British pharmacy as well.

WILLIAM GILES,

President Aberdeen Pharmaceutical Association.

JOHN BLACK,

Secretary Aberdeen Pharmaceutical Association.

Aberdeen, April 20.

#### The Trade in "Patents."

SIR,—I should like to know what is the general experience as to the effect of an increased trade in "patents" on other branches of business. I have found that as I lower the price, and thus increase the sale, of proprietaries, my turnover in drugs proper decreases. This is just what might have been expected, for even the most hardened valetudinarian cannot altogether live on physic, but if he tries a new remedy must leave off an old one. The question next arises, Is it good policy to sell patents at unprofitable prices, if by so doing we reduce the trade in more remunerative things? Evidently it is not, unless there is some countervailing advantage. Is there? The only one that I can find is that I sell a few more proprietaries of my own, but not enough to compensate me for loss of profit on the old retail trade in drugs; at least, I think not. Certainly my net profits from the whole of my business are now much less than they were before I increased my returns by lowering patents. Is not my experience a pretty common one? Be this as it may, it has led me to discourage the demand for patents as much as possible, and to this end I put forth recently the following advertisement, which has already had a good effect:—

#### PATENT MEDICINES

are usually worthless, frequently dangerous, and always dear;

#### FOR SIMPLE AILMENTS SIMPLE DRUGS

are best, but these should always be got from qualified chemists, who alone understand their properties, and can give advice as to their use. The absolute purity and freshness of every medicine sold is guaranteed by —

Yours, &c.,

O. K. (17/68.)

#### Anti-substitution Straws.

SIR,—The pharmacist who cannot identify the inspirer of the *Daily Mail's* latest effusions must be very dull indeed. It is extremely improbable that a non-pharmaceutical journalist would be able to refer to the episode of 1876, which you show to have been subjected to such gross and dastardly misrepresentation. Again, though the sensational

journalist is a master of spurious logic, there is a system of distortion here which is not his. Further, the articles contain numerous expressions which show them to be paraphrases of text supplied by a pharmaceutical writer; the word "clerk" is the most conspicuous "give away," but there are several others which the lay journalist would not use. No ordinary writer would misuse the word "substitution" as this scribe does; it is an error neither of ignorance nor of slanginess, but a deliberate misuse. Lastly, in trying to secure the benefit of their inspiration (or investment), the Oval maker and his principal satellites, the Perfect Pill maker and the Rollable film Bulldog, actually drop their cloaks. What think you of a man who, convinced of the folly of openly kicking those whom he calls friends, borrows a cloak, hoping to do it unrecognised? And of another so debased as to lend his garment for the performance of such a dirty trick? Oh, for a fable of Æsop (or a quotation from the Bible) with which to scourge them!

Faithfully yours,

Hampstead, April 18.

A. W. BROMLEY.

SIR,—Since the *Daily Mail's* articles were published several letters have appeared in the same paper supporting the contentions of the articles, but as yet not one in support of the retail chemists. I sent a letter on April 10 protesting against such insinuations and libels upon the average retail chemist, requesting that my letter be printed and an opportunity given to thoroughly thrash out the matter. Absolutely no notice has been taken of my letter, and in all probability several other letters of a similar nature have met with the same fate. If you kindly publish this humble epistle of mine in your valuable journal we shall no doubt learn a good deal more of the concern. I enclose a copy of my letter, and you are welcome to make whatever legitimate use of this you deem fit.

Yours faithfully,

ANTE-CANT. (21/23.)

[Another correspondent writes to the same effect, also sending a copy of the letter which our morning contemporary did not publish. We have no room for these this week, but the fact stated suffices to show "how the wind blows."—EDITOR.]

#### The "Fresh" Apprentice's Dilemma.

THE other night a lady fair, of beauteous form and noble air,  
Came in the shop, and, with a sigh, said, "Please, a powder, or  
I die!

A powder which will headache stop, for I have got it fit to drop.

I think I'll take it in the shop."

With nervous haste I seized a tin (the one which holds phenacetin),  
Turned out a powder in a glass, and all the time felt like an ass.

Some water poured—the mixture stirred, and handed it without a word.

Phenacetin refused to sink, and clung around the glass's brink,  
While half swam on the top like ice. To say the least, its looks  
weren't nice.

The lady gazed in mute surprise, then, with a twinkle in her eyes,  
Said, "Oh!—Ahem! I fear, you know, you've got too much of  
H<sub>2</sub>O."

"You're right," I said; "I rather think I'd better fling it down  
the sink."

As I was trying to decide,  
The errand-boy came with hasty stride right round the counter to  
my side.

For nought, you know, can 'scape his eye of things on earth or in  
the sky.

He came, I say, and, truth confessed, I at that moment Thomas  
blessed;

I was so grateful, that I could have kissed the ground on which he  
stood.

For in a sentence, plain and clear, young Thomas banished all my  
fear,

Then darted back again—while I took his advice, and "Gave it  
dry."

G. W. D. (2,62.)

#### Dividing Seidlitz-powders.

SIR,—Can you say how the inspector under the Food and  
Drugs Act should take samples of seidlitz-powders? I have  
just had one in, and he emptied all the powders out on to a  
paper and stirred them together, and put them into three  
bottles, leaving one with me. I told him they could not  
be thoroughly mixed that way, but he said those were his  
instructions.

Yours truly,

SEIDLITZ. (16 64.)

[Magistrates have held that when, say, a dozen seidlitz-



powders are sold, dividing them into parts of four each is not division in the sense of the Acts. There have been decisions to the contrary. A seidlitz powder, according to the British Pharmacopœia, consists of a blue paper containing 120 gr. of sodium potassium tartrate and 40 gr. of sodium bicarbonate, and a white paper containing 38 gr. of tartaric acid. In judging the quality of this article the analyst must determine the weight of each ingredient in each paper. The decision in *Mason v. Cawdray* (*C. & D.*, June 2, 1900, page 42) applies here, so that the mixture of the contents of several papers by the inspector is improper, and would vitiate the analysis. It is essential for the analyst in judging the quality of the contents of the blue paper to have the ingredients so intimately mixed that each third thereof shall contain 40 gr. of sodium potassium tartrate and 13.3 gr. of sodium bicarbonate. The maker or seller of the powder is not required by the British Pharmacopœia to mix the contents so intimately, nor is it essential for medicinal purposes. Consequently the purchaser for the purposes of the Sale of Food and Drugs Acts must make sure that each of the three parts that he divides the contents of the paper into is the same as the others, and that each part of the acid weighs 12.6 gr. This is the strict law of the matter, and as it involves on the part of the inspector the exercise of a duty which the Acts relegate to the analyst, prosecution should fail.—**EDITOR.]**

### Miscellaneous Inquiries.

We endeavour to reply promptly and practically to trade questions of general interest, but cannot guarantee insertion of replies on a particular date, nor can we repeat information given during the past twelve months.

13/40. *Pharmacy*.—The Irish Pharmaceutical Licence is recognised for registration in all the South African colonies. Natal is the garden of South Africa, but it is not possible to put one colony before another in the matter of health-giving. Some parts of each are remarkably salubrious, and these are the places to which chemists and doctors are not attracted.

12/63. *C. B. V.*—(1) Olein is a term applied to crude oleic acid, and also to any liquid oil obtained from partly solid oils by pressure. You must judge by the context which is intended in the washing-liquor recipe. (2) We are inquiring.

13/10. *Respectable Store*.—Thanks, but there is nothing fresh in your letter.

13/48. *Carbon*.—Formol is one of the names for formic aldehyde (40 per cent. solution).

13/46. *C. W.*—Thanks for the labels. The decisions have been previously recorded.

13/24. *Durham*.—Saccharin is used to sweeten castor oil. A grain will sweeten 6 to 8 oz. of the oil, in which it should be dissolved by heat or by the aid of a little absolute alcohol.

243/26. *W. P.*—Your mistake in the estimation of the Sugar in Urine has arisen from the fact that you have taken the figures upon the glycosometer to indicate percentage of sugar in undiluted urine, while as a matter of fact the graduations are for urine diluted to the extent of 1 in 10. As you only diluted your samples 1 in 4, you must make a calculation in accordance therewith. Your readings must be multiplied by  $\frac{4}{10}$ , which will make the resulting percentages 4 and 3.2 respectively. It is a good plan generally to dilute 1 in 10, and then the readings require no calculation. If, however, the sp. gr. of the sample is much below 1030, it may be more convenient to dilute only to the extent of 1 in 5, and the readings must then be halved.

14/54. *Dispenser*.—Charges for Doctors' Dispensing.—We have frequently published a note of these charges, the last time on December 6, 1902, page 957.

159/38. *A. T.*—Books on Tobacco-culture.—See *C. & D.*, January 10, page 63.

232/68. *Pilule*.—Blaud's Pills.—The formula for the iron pills devised by Dr. Blaud, Head Physician of the Hospital of Beaucaire, Gard, was first published in France in 1831

and inserted in the Codex, 1866. The formula in the present Codex is an exact copy of the original recipe. As to the origin of the formula, the idea arose from Griffith's mixture, first made official in the P.L. 1809. In the P.L. 1824, pil. ferri co., intended to represent mist. ferri co., was inserted. The pill was made of ferri sulph., sodii carb., saccharum, and pulv. myrrh., and it is the prototype of Blaud's pill. The pil. ferri co. was called Griffith's pill, a name even now sometimes applied to Blaud's pills. Dr. Blaud was probably familiar with the P.L. formula, and in his experiments found pot. carb. better than sodii carb. and the pulv. myrrhæ not needed.

225/56. *L. A. J.*—(1) *Renovating Corks*.—The following process for renovating corks was communicated to us some years ago:

First put the corks into a solution of common soda, in a suitable tub (strength 2 or 3 oz. to the gal.) or a weak solution of American ash. Stir about at intervals, and in two or three days pour off the solution, wash, and put into a weak solution of hydrochloric acid; treat as before, and finally wash with plenty of water. A whiter cork may be produced by using, after the soda, pot. permang. and sod. hyposulph. c. ac. oxalic, in the same way that sponges are bleached.

(2) *Inf. Gent. Co. Conc.* (1-7).—The formula devised by Messrs. Farr and Wright is excellent. The process is:

Dried gentian-root (No. 10 powder)	4 oz.
Dried bitter-orange peel (No. 10 powder)	... 4 oz.
Tincture of lemon (B.P.)	... 4 oz.
Alcohol (90 per cent.)	... 7 oz.
Distilled water	... a sufficient quantity

Moisten the powders with  $\frac{1}{2}$  pint of distilled water, set aside in a covered vessel for twelve hours, pack lightly in a percolator, and, adding more water, continue percolation until 29 oz. percolate has been collected. Add the tincture and alcohol with a sufficient quantity of distilled water to produce 40 oz.; set aside for forty-eight hours; filter.

239/15, *G. B.*; 255/33, *T. B.*—Egg-preserving.—See Editorial article in this issue.

253/9. *Rusticus*.—A few shakes generally unites the mercury of a wheel barometer which has got separated. Keep the barometer upright.

203/31. *Lux*.—Candle-wicks.—The pickle used for soaking the wicks of candles varies according to the nature of the wick, and each maker has his own private recipe. The solution used to counteract the ashing or smoking of candles, contains one of the following salts: borax, nitre, sal ammoniac, potassium chloride or chlorate, the proportion being about 1 oz. to the pint. The wicks are steeped for twenty-four hours, and dried by a centrifugal machine and drying-chamber.

17/12. *F. D.* (Budapest).—Non-mercurial Plate-powder:

Rouge	... 1 oz.
Heavy carbonate of magnesia	... 8 oz.
Light precipitated chalk	... 1 lb.

Mix well and sift three times.

If the directions order the use of equal parts of ammonia and water for moistening the powder, an even better result is obtained.

1/73. *Herbs*.—Books on the Properties and Medicinal Uses of Herbs.—O. P. Brown's "Complete Herbal" (4s.); A. I. Coffin's "Botanic Guide to Health" (4s.); Culpepper's "Herbal" (1s. editions are now published); W. Fox's "Working Man's Model Family Botanic Guide" (2s.); Geo. Slack's "Herbal" (6d.); G. Stevens's "People's Guide to the Botanic Treatment of Disease" (2s.). These are sold by Messrs. Potter & Clarke, Artillery Lane, E.

18/42. *E. B. K.*—Glass-mortar Explosions.—These are quite common. We receive in the course of each year several packages containing the shivered remains of glass mortars which have suddenly had their molecular cohesion disturbed. The substance which is being or has just been rubbed in the mortar does not seem to affect the matter.



19/57. *Joint Stock*.—You will find all particulars in THE CHEMISTS' AND DRUGGISTS' DIARY as to the formation of joint-stock companies. If the object of the registration is to enable you to give managers of branches, your best plan is to make it a company with liability limited by guarantee, and a nominal but small capital. A registration-agent (see our Coloured Supplement) will carry the matter through for you economically.

6/49. *H. M. C. (Curacao)*.—*Treatises on Botany*.—Vine's "Text-book of Botany" and Bentley's "Botany" contain plenty of classification; but we suspect you are wanting the useful side of botany—economic botany. Haldane's "Sub-tropical Cultivations and Climates" (Blackwood, 9s.) is a short account of the cultivation of such things as tea, hemp, olives, and jute; but if you have in view any special product, we may be able to recommend a book on that subject.

8/61. *Ajax*.—*Waterproofing Canvas*.—There is no book on this subject but the abridgments of the patents for waterproofing fabrics would give you a good idea of the processes used and machinery employed. The class is 140 and the volumes for 1884-8, 1889-92, 1893-6, cost 1s. each.

8/15. *R. W. B.*—*Palmitate of Aluminium* is a resinous combination of palmitic acid and alumina. It dissolves readily in turpentine and benzine, and in those forms is used as a varnish for making waterproof materials and artificial leather. Other uses of aluminium palmitate are as a filling-material for soap, a solidifier for lubricating-oils, and, dissolved in benzine, as a chemical cleaning-agent. The best source of palmitic acid is Japanese wax, and the combination is made by saponifying the wax with potash and water, and precipitating by adding alum-solution.

198/64. *F. F. A. T.*—*American Hair-raiser*.—Beyond the inevitable wintergreen, the result of our examination of this is negative. There is no pilocarpine present, nor any cantharides that we can detect.

258/59. *Fluc*.—*Flue-cleaners*.—Two of the samples you send are mixtures of salt and sulphur, but one is coloured with Venetian red. The third sample is different, and has apparently been made by fusing sulphur and iron-filings together, roughly powdering and mixing with a smaller proportion of charcoal. How it acts as a flue-cleaner it is difficult to see. With salt and flowers of sulphur in equal parts and some colouring-matter you will have no difficulty in supplying the local ironmonger with a representative article.

213/53. *H. & Co.*—*Liquid Dog-soap*.—Our examination of your sample does not take us much further than you got in analysing it. Potash-soap is the lathering ingredient, and in about the following proportion:

Sapo mollis	...	...	...	3iv.
Liq. carbonis detergens	...	...	...	3ij.
Aqua ad	...	...	...	Oj.

Dissolve the soap first in the warm water, and add the solution of coal-tar when the solution has cooled.

200/30. *Devon*.—*Remedy for Dropped Cows*.—This is simply spt. ammon. arom. 1 oz., coloured red. We have not been able to spot the colouring-matter; it is not cochineal, but probably madder.

228/65. *A. D.*—(1) *Substitute for Soap* in laundries.—This is lump caustic soda. (2) *The Special Soap* for laundries is a resin soap.

201/46. *Govern*.—*The Rheumatism-cure* is chiefly turpentine with some ol. origani. Is it used as a liniment, or taken internally?

226/2. *N. R.*—*Sausage-seasoning*.—It is not possible to hit upon the ingredients of this with much accuracy. We suggest as likely constituents besides the pepper, salt, and cumin you detect, ground mace, ground nutmeg (these are almost certainly present), cloves, sage, pennyroyal, pimento, and cinnamon. Pepper and salt form about 80 per cent. of the whole. If you carry on a series of experiments with the flavours indicated you will probably get at the proportions of the other ingredients very nearly.

248/41. *Three Teas*.—*The Tea-tablets* are quite harmless. We have ascertained that they are made by the Tanocca Tablet Company, of Bletchley, for the purpose of neutralising the tannin in infusion of tea. The tablets appear to be made of sodium carbonate and gelatin.

247 59. *Ant-Eczema*.—Your sample of *Ointment for Eczema* is ung. ac. borici, made with yellow vaseline.

20/49. *L. P. S. I.*—*Unna's Glycerin-and-zinc Jelly*:

Gelatin	...	...	...	3iij.
Zinc oxide	...	...	...	3ij.
Glycerin	...	...	...	3vss.
Water	...	...	...	3ix.

Mix.

19/22. *A. W. & Co.*—(1) *Pill-varnish* for applying to pills before coating:

Sandarac	...	...	...	1 oz.
Absolute alcohol	...	...	...	2 oz.

Dissolve.

(2) *Pink Pearl-coating* is managed by using for the final coating French chalk coloured red with carmine or eosine.

8/52. *Omar*.—The cough-mixture will be sure to ferment in time. Some glycerin or spirit of chloroform is needed to give keeping qualities.

19/25. *Laundry*.—The glazing-paste is probably glycerin of starch, about the use of which by laundresses see the *C. & D.*, March 1, 1902, page 358.

248/15. *Ink Stains*.—*The Ink-stain Remover* is salt of sorrel.

233/48. *S. L.*—*Bird- tonic*.—We published an analysis of this in the *C. & D.*, February 7, page 251.

220/8. *Cascarets*.—*Custard-powder*.—A good recipe for this is the following, from "Pharmaceutical Formulas":—

Pulv. oryzæ	...	...	...	lb. ij.
Pulv. marante natal.	...	...	...	lb. j.
Ext. croci fl.	...	...	...	5j.
Ol. amygd. essent.	...	...	...	℥xx.
Ol. neroli	...	...	...	℥iij.

Mix the liquids in a mortar with a few ounces of rice-flour until 8 oz. of the latter has been used, sift, and mix with the rest of the flour and arrowroot. Again sift.

Your sample resembles the above, but has, in addition, a little vanilla in the flavouring.

## Coming Events.

*Secretaries should send us notices by Wednesday of each week.*

**Tuesday, April 28.**

*Imperial College of Chemistry*. Bohemian concert at the Albion Hotel, Ludgate Circus, at 7.30 P.M. Ladies are invited.

**Wednesday, April 29.**

*Edinburgh Chemists', Assistants', and Apprentices' Association*, 36 York Place, at 9.15. Debate: Should the Pharmaceutical Society again conduct its own Preliminary examination? Affirmative, Mr. J. G. Selater; negative, Mr. A. Currie.  
*Cardiff Pharmaceutical Association*. Ordinary meeting.

**Thursday, April 30.**

*Great Yarmouth Pharmaceutical Association*, 156 King Street, at 8 P.M. Ordinary meeting.  
*Barnsley Chemists' Association*, Royal Hotel, at 7 P.M. Election of delegates to the West Riding Federation meeting.  
*Chemists' Assistants' Association*, 73 Newman Street, Oxford Street, W., at 9 P.M. Musical and social evening.  
*Public Dispensers' Association*, St. Bride Institute, Ludgate Circus, E.C., at 8 P.M.

**Friday, May 1.**

*Royal Institution of Great Britain*, Albemarle Street, Piccadilly, W., at 9 P.M. Professor W. J. Pope on "Recent Advances in Stereo-chemistry."



# The Assistants' Page of News.

## THIS WEEK'S "C. & D." IN BRIEF.

AN IRISH PHARMACY BILL is rumoured (p. 676).

FOR further Irish examination-results see p. 647.

TR. GENTIAN. Co. is too bitter, Mr. Boa says (p. 651).

THE COUNCIL PRIZES QUESTIONS are given on p. 652.

FOR the London Minor examination results see p. 653.

SALICIN chiefly occurs in the inner willow-bark (p. 651).

MR. JOHN R. JACKSON tells, in a note on p. 669, how arrowroot is made.

HAVE YOU A BOOKPLATE? If so, we would like a copy of it. See p. 670.

THE RACE FOR THE COUNCIL-ROOM is the subject of this week's cartoon (p. 670).

THE use of water-glass for preserving eggs is fully described in an article on p. 673.

THE origin of Bland's pills (particularly interesting at present) is briefly told on p. 693.

IN MODERN BEEKEEPING Mr. W. F. Reid is an expert. His views will be found on p. 677.

MR. PATERSON replies to Mr. Anderson Russell, and is backed up by his Aberdeen *confrères* (p. 691).

DONOVAN'S SOLUTION was thoroughly discussed by Mr. William Duncan at Edinburgh last week (p. 651).

A TESTING-HOUSE in London for commercial produce is suggested. Mr. J. C. Umney objects (p. 689).

EASTON'S SYRUP was first made by Mr. John McMillan, of Glasgow. The original formula is given on p. 667.

A CHEMIST'S ASSISTANT, who spent a summer in Strathpeffer, sends photographs and notes of the district (p. 666).

SCOTT'S EMULSION and several other proprietary articles have been put on the P.A.T.A. protected-prices list (p. 681).

"XRAYSER" makes some reflections on the evolution of chemical industry and observations on the *Daily Mail's* attacks (p. 671).

At the North Staffs chemists' dinner Mr. Glyn-Jones hinted a possible compromise on the poisons question (p. 668 and p. 673).

MR. WILLIAM BASTICK, a member of the Pharmaceutical Council and Examiner in the fifties, is the subject of a sketch on p. 657.

PROFESSORS H. G. GREENISH AND DONALD MACALISTER have been elected honorary members of the Paris Society of Pharmacy (p. 648).

THE MANUFACTURE OF CAPE ALOES is described in an illustrated article, for which we are indebted to Professor Tschirch (p. 664).

THE HIMALAYAN CHEMIST is delightfully depicted by "F.R.G.S." on p. 660.

PHARMACY in Portuguese East Africa and in Durban is chiefly dealt with in the article beginning on p. 660. It contains several good pictures.

MESSRS. PARRY AND BENNETT, writing further about citronella oil, show that resin spirit (the new adulterant) has been exported to Ceylon (p. 639).

A LADY gets one of the Students' Corner prizes this month. Four tournament prizes are awarded, and a competition for juniors is announced (p. 643).

A SHEEP-DIP COMMITTEE has been appointed (p. 644). It may delay poisons legislation (p. 674). At any rate, this is a point which should be put to Mr. Hanbury at Preston (p. 678).

OLD SHEFFIELD PHARMACISTS have again afforded Mr. John Austin a fruitful subject of interesting reminiscence. An abstract of his paper is printed on p. 653, and the discussion upon it on p. 658.

THERE have been no important changes in the markets this week. Gentian, Chinese galls, ginger, cochineal, and nitrate of soda are higher. Agar-agar and Cartagena ipecac. are firmer, and copper sulphate, ammonia sulphate, and cream of tartar are easier. Cinchona sold at unchanged prices at auction on Tuesday, but quinine remains lifeless. A large auction of spices was held this week (p. 685).

## STUDENTS' NOTES.

OUR STUDENTS' CORNER.—The completion of the winter tournament in qualitative analysis reveals an exceptional circumstance—viz., that three of the four prizes go to Edinburgh—and it is further notable that the winner of the tournament prize has not previously in the six months figured as a prize-winner. This shows admirably the advantage of pegging away. As the senior students have had a good innings lately, we have thought it advisable to give the juniors a free field as regards prizes until the next tournament begins, without, however, excluding Minor men from the analytical practice which the Corner affords. The salts to be sent out will be easier than those given in the tournament, and they are specially intended for those preparing for the qualifying pharmaceutical examinations. Students' applications for portions of the mixture of salts (accompanied by a stamped and addressed envelope, not a stamp merely) will be received by the Editor of THE CHEMIST AND DRUGGIST, 42 Cannon Street, London, E.C., up to Tuesday, April 28, and the samples will be posted on the following day. Student's reports will be received up to Saturday, May 9. All communications and reports must bear the names and addresses of the writers, not necessarily for publication. The reports of those who ignore this rule are liable not to be dealt with.

THE APRIL MINOR IN LONDON.—We have received from a well-informed correspondent and an experienced teacher (21/32) a letter in which he refers to the discontent amongst students as regards the Pharmaceutical Society. He says:—"Imaginary grievances may afflict the minds of a few, but not those of the average and ordinary person. The chemistry and dispensing papers at the Minor this month, as published in the *C. & D.* last week, are, in my opinion, sufficient to justify a good deal of the discontent. Of the six dispensing papers you publish, three contain five items, and the other three contain four. The individual items on the papers containing five are, generally speaking, of a more difficult character than those on the shorter papers, particularly so in the case of paper No. 2. Where does the fairness come in here? If four items are sufficient to occupy the allotted time, those candidates who had five to dispense have reasonable ground of complaint. If five are not too many for the time, those who only got four were let off too easily. The same discrepancy is noteworthy in the chemistry papers, especially as regards the volumetric work, in which the papers marked 1, 3, and 6 are infinitely more difficult than the other three; and this has the approval of the Government Visitor, who favours the removal of restrictions upon the sale of poisons. Truly, 'there's nowt so queer as folk.' In face of these facts, the large percentage of failures is laid at the door of the training at 'inefficient places of instruction.' I trust this will have the effect of calling attention to this unfair condition of things. At the same time, it would be advisable for the authorities to contrast the nature of the practical chemistry now given with that of a few years ago. Formerly it was chiefly designed to bring out the candidate's familiarity with medicinal chemicals (a most useful business asset for everybody); now it is designed to show familiarity with chemical methods.

THE EDUCATIONAL INSTITUTIONS advertising in this issue are as follows:—

South London School of Pharmacy (Muter's), 325 Kennington Road, S.E.

London College of Chemistry, Pharmacy, and Botany, 323 Clapham Road, S.W.

Metropolitan College of Pharmacy, 160 and 162 Kennington Park Road, S.E.

Leeds College of Pharmacy, Clarendon Road, Leeds.

Liverpool School of Pharmacy, 6 Sandon Terrace, Upper Duke Street, Liverpool.

Westminster College of Chemistry and Pharmacy (Limited), Trinity Square, Borough, S.E.

Glasgow School of Pharmacy, 180 West Regent Street, Glasgow.

Northern College of Pharmacy, 100 and 102 Burlington Street, Manchester.

Imperial College of Pharmacy, 49 and 51 Imperial Buildings, Ludgate Circus, E.C.

Manchester College of Pharmacy, 225A and 227A Oxford Street, Manchester.

North of England School of Chemistry and Pharmacy, 55 Northumberland Street, Newcastle-on-Tyne.

West of Scotland School of Pharmacy, 157 St. Vincent Street, Glasgow.



# Exchange Column—Bargains.

## TERMS.

Limited to the Advertisements of Surplus Stock, Shop Fittings, Apparatus, Photographic Goods, Books and Periodicals, Formulae, Addresses Wanted and Articles Wanted.

**1**<sup>**d.**</sup>**2** per word with name and address. **1d.** per word if we register the address and attach a number.

No Advertisement inserted for less than **6d.**

Remittances payable to **EDWARD HALSE**, and crossed **MARTIN'S BANK, LIMITED.**

## FOR DISPOSAL.

### APPARATUS.

**Gas-engine** (Crossley); about 3 h.p.: equal to new; complete, tank, belt, &c.: cost £80, take £40; can be seen working. Write, "H," 44 Mount Arrarat Road, Richmond.

**Offers** for Gardoer sifter and mixer, size F. quite new, never been used: Niblett's pill-rounding machine, cost £35; Niblett's coater, hand or power, cost £30. 162/23, Office of this Paper.

**Electric light** for chemists.—ALEX. ROBERTSON, Oban, offers for sale, cheap, his whole electric-light installation, including gas-engine, dynamo, and all accessories; perfect order; only reason for disposal, corporation now supplying current; cheapest and most effective advertisement in a gas-lit town.

### BOOKS AND PERIODICALS.

**Mayne's "Medical Vocabulary";** what offers? 162/33, Office of this Paper.

**Minor books and apparatus** for sale, cheap; list. "S.," 100 Kirkdale, Sydenham.

**Quantity** old numbers *Pharmaceutical Journals* and *Chemist and Druggist*. STILES, Chemist, Doncaster.

**"The Dispensatory,"** 17th edition; nicely bound; cost 37s.; what offers? HULME, 82 Finsbury Road, Wood Green, N.

**Minor and Major books,** *Pharmaceutical Journals* (1899 to 1902); very cheap; list sent. KELF, 16 Oakhurst Grove, East Dulwich.

### DRUGS AND CHEMICALS.

**40 lbs.** matured cascara bark, in powder; what offers? GALLOWAY & Co., Inverness.

**Offers** wanted for 2 lbs. bismuth carb., 1 lb. bismuth subnit. 166/28, Office of this Paper.

**1 lb. ess. bergamot opt.;** 2 lbs. ol. aurant.; 1 lb. ol. rosemar.; 1 lb. fabæ tonka; offers. SHAW, Chemist, Doncaster.

**Overstocked**—What offers? 5 doz. 32-oz. cod-liver oil, 8 doz. 8-oz. ditto, 9 doz. 4-oz. ditto. 164/18, Office of this Paper.

### OPTICAL AND PHOTOGRAPHIC.

**Overstocked.**—Achromatic R. R. iris lens,  $\frac{1}{2}$ -plate, 12s. BARFOOT, Chemist, Chesterfield.

**Matagraph.** cinematograph, and all accessories for sale, cheap; condition as new. PRIOR, Chemist, Stamford.

**Lancaster  $\frac{1}{2}$ -plate "Instantograph"** (1898) stand-camera, complete as advertised; sound condition; what offers? WISE, St. Neots.

**Smith & Beck's** binocular microscope, in first-class condition; 2 pairs of eyepieces, 2-in., 1-in., and  $\frac{1}{2}$ -in. objectives (1-in. and  $\frac{1}{2}$ -in. with Lieberkuhn), bull-eye condenser, and other accessories, price £12 12s.; also a Zeiss B. B. objective,  $\frac{1}{2}$ -in., good defining-power, flat field, new condition, price £1 1s. D. PARTRIDGE, 14 Alexandra Road, Leicester.

### PROPRIETARY ARTICLES.

**Surplus stock.**—2 Brandreth's pills (1s.  $1\frac{1}{2}$ d.); 2 Whelpton's purifying (7 $\frac{1}{2}$ d.); 3 Locock's wafers (1s.  $1\frac{1}{2}$ d.); 2 Hibbert's antiseptic medicine (1s.  $1\frac{1}{2}$ d.); 3 Oxley's ginger (2s. 9d.); 2 Seabury's hydronaphthol pastilles (1s.  $1\frac{1}{2}$ d.); 2 Rowland's Odonto (2s. 9d.); 2 fir-wool oil (1s.  $1\frac{1}{2}$ d.); 3 Davies' anti-copulence pills (1s. 9d.); 4 ditto (2s. 9d.); face value, £2 4s. 3d.; the lot for 20s. MANSON & RIDER, Waterloo, Liverpool.

## SHARES.

**Shares for sale.**—See Miscellaneous column (p. 216).

50 Evans Lescher & Webb £1 5% cum. pref.; what offers? "ANTIFERRIN," 113 Bedford Road, Birkdale.

## SHOP FITTINGS.

**Complete fitting** for chemist shop. "S.," 155 Kiog Street, Hammer-smith.

**Marble mortar,** with wooden pestle and strong oak stand, 15s., exchange  $\frac{1}{2}$ -plate camera; tincture-press, as Maw's fig. 26, sound, 7s. 6d. HOLME, Yardley Hastings, Northampton.

## MISCELLANEOUS.

**Century** bath-cabinets; 3 @ 50s., 1 @ 70s.; new; half-price, car. paid. 161 22, Office of this Paper.

**Tooth-forceps** (17) and gum-lancet; good all-round lot; a bargain, 35s. "O.," 119 Westminster Bridge Road, S.E.

**About 6 doz. each,** suspensory bandages; surplus stock; cotton, well assorted, 4s. doz.; silk, well assorted, 8s. 6d. doz.; clean and perfect; cash returned if not approved. "R.," 63 Heron Road, Herne Hill, London.

**1-gal. and 2-gal. stone filters;** 6 doz. 4-oz. syrup figs; 1 doz. Dybson's Black-leg drinks; 2 doz. 1s.  $1\frac{1}{2}$ d. Nurse Powell's pills; 6 doz. 1s. boxes Ovaline soap; best offers, or exchange for leading patents. BAYLEY, Chemist, Lichfield City.

**2 Ibis,** 6 pine-wood chest-protectors, 9 4s. 6d. Koko, 1 3s. 6d. Birley's specific, 4 Dent's Phenoline, 1 doz. 1s. 9d. Day's gas-fluid,  $\frac{1}{2}$  doz. Gosnell's hair-dye,  $3\frac{1}{2}$  gross pil. quinine (2 grains) (Oox), 7 lbs. ol. eucalypt. glob., 1 lb. quicksilver,  $1\frac{1}{2}$  lb. bals. copaiba; dispensing-scales (cost 25s.); 18-pill machine; Koko clockwork figure; what offers? JONES, Chemist, Middleham.

## WANTED.

**Sifting and mixing machine.** "M.," 45 Kidderminster Road, Oroydon. Old electric lamps and scrap platinum. P. ROWSELL, 9 Derwent Grove, E. Dulwich.

**Old artificial teeth;** cash return post. Messrs. DENT, 120 Greyhound Lane, Streatham.

**Six 3-gal. pear-shaped show carboys and stands;** must be uniform. GRAHAM, Chemist, Sheffield.

**"Optical Tables and Data."** Silvanus Thompson. State lowest price, "W.," 57 Bath Terrace, Workshop.

**Dental-press,** or old tincture-press frame with screw; nitrous-oxide apparatus. ALLEN, Chemist, Urmston.

**No. 3 folding pocket Kodak;** must be faultless; cheap for cash; approval. FRED. STRAUGHTON, Chemist, Ockermouth.

**Mahogany showcase,** 9 ft. long, 6 ft. high, about 6 in. deep; good condition; cheap. JOHNSON, Chemist, Blackpool.

**Dental-chair;** must be low (for short operator) and in good condition. State lowest price, SHARP, 41 High Street, West Norwood.

**Nests of drug-drawers, shelving, and general fittings** for a small branch; in good condition and cheap. Letters only, 93 Angel Lane, Stratford, London.

**"Proc. Brit. Ph. Conf."** (*Year-book Pharmacy*), 1864-69, or part; *Ch. & Dr.*, 1859-1902, or part; *Jl. Soc. Ch. Ind.; Chem. Soc. Analyst; Chem. Gaz. and News.* 151/13, Office of this Paper.

## ADDRESSES WANTED.

**Artificial-teeth makers and repairers.** State terms, 163/33, Office of this Paper.